

GenCore version 5.1.6
Copyright (c) 1993 - 2005 CompuGen Ltd.

OM nucleic - nucleic search, using bw model

Run on: January 22, 2005, 23:11:32 ; Search time 175 seconds
(without alignment)
8285.768 Million call updates/sec

Title: US-09-294-539-3

Perfect score: 2040
Sequence: 1 atcgagccgcgcagccagcca.....caaaaaaaaaaaaaaaaaa 2040

Scoring table: IDENTITY NUC
Gapop 10.0 , Gapext 1.0

Searched: 824507 seqs, 35539441 residues

Total number of hits satisfying chosen parameters: 1649014

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

- Issued Patents NA:*
- 1: /cgn2_6/prodata/1/ina/5A_COMB.seq:*
 - 2: /cgn2_6/prodata/1/ina/5B_COMB.seq:*
 - 3: /cgn2_6/prodata/1/ina/6A_COMB.seq:*
 - 4: /cgn2_6/prodata/1/ina/6B_COMB.seq:*
 - 5: /cgn2_6/prodata/1/ina/PCTUS_COMB.seq:*
 - 6: /cgn2_6/prodata/1/ina/backfile1.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	590.2	28.9	1731	4	US-09-519-232-3
2	563.4	27.6	1767	4	US-09-519-232-1
3	562	27.5	2296	4	US-09-519-232-63
4	420.6	20.6	2011	2	US-08-989-478-6
5	420.6	20.6	2011	2	US-08-989-478-7
6	420.6	20.6	2011	3	US-08-996-685-6
7	420.6	20.6	2011	3	US-08-996-685-7
8	411.8	20.2	1608	2	US-08-989-478-11
9	411.8	20.2	1608	3	US-08-996-685-11
10	409.2	20.1	1597	2	US-08-989-478-9
11	409.2	20.1	1597	2	US-08-996-685-9
12	400.4	19.6	1194	2	US-08-989-478-13
13	400.4	19.6	1194	3	US-08-996-685-13
14	381.8	18.7	1740	4	US-09-519-232-5
15	380.4	18.6	1803	4	US-09-519-232-19
16	380.4	18.6	1818	4	US-09-519-232-71
17	359.8	17.6	653	4	US-09-519-232-45
18	345.2	16.9	659	4	US-09-519-232-29
19	315.8	15.5	1428	4	US-09-569-804-1
20	315.8	15.5	2368	4	US-09-569-804-2
21	311.8	15.3	2154	4	US-09-551-778-1
22	311.8	15.3	2154	4	US-10-047-593-1
23	311.4	15.3	2673	4	US-09-519-232-73
24	309.8	15.2	1830	4	US-09-569-804-6
25	309.8	15.2	2120	4	US-09-569-804-8
26	306.2	15.0	1824	4	US-09-569-804-5
27	306.2	15.0	2420	4	US-09-569-804-7

28	277	13.6	498	4	US-09-519-232-37	Sequence 37, App1
29	276.6	13.6	498	4	US-09-519-232-39	Sequence 39, App1
30	265.4	13.0	2844	4	US-09-519-232-65	Sequence 65, App1
31	264.8	13.0	786	2	US-08-989-478-15	Sequence 15, App1
32	264.8	13.0	786	3	US-08-996-685-15	Sequence 15, App1
33	262	12.8	1761	4	US-09-519-232-7	Sequence 7, App1
34	258.4	12.7	5655	2	US-08-989-478-1	Sequence 1, App1
35	258.4	12.7	5655	3	US-08-996-685-1	Sequence 1, App1
36	258.4	12.7	5655	3	US-08-880-179-2	Sequence 2, App1
37	258.4	12.7	9919	3	US-08-880-179-1	Sequence 1, App1
38	243.4	11.9	498	4	US-09-519-232-41	Sequence 41, App1
39	231.4	11.3	498	4	US-09-519-232-41	Sequence 41, App1
40	230.6	11.3	1385	4	US-09-569-804-16	Sequence 16, App1
41	230.4	11.3	2235	4	US-09-519-232-60	Sequence 20, App1
42	229	11.2	1725	4	US-09-519-232-69	Sequence 69, App1
43	205.4	10.1	1804	4	US-09-519-232-17	Sequence 17, App1
44	198.2	9.7	498	4	US-09-519-232-57	Sequence 57, App1
45	193.4	9.5	498	4	US-09-519-232-31	Sequence 31, App1

ALIGNMENTS

RESULT 1
US-09-519-232-3
; Sequence 3, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Williams, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RFP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 1731
; TYPE: DNA
; ORGANISM: Lycopersicon esculentum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(1728)
; OTHER INFORMATION: Full length tomato cDNA sequence
US-09-519-232-3
Query Match 28.9%; Score 590.2; DB 4; Length 1731;
Best Local Similarity 65.2%; Pred. No. 2.8e-121;
Matches 906; Conservative 0; Mismatches 468; Indels 15; Gaps 2;
QY 356 AGGAGTGAAGTTCGGGTACGAGGCGCTGCTGCTTCACTTACAGGGCC 415
308 AAGAGTATAGGAGTGTGATGCGGTGCTGCTGCTTGTATAGTGAA 367
DB 416 GCGTCGAGCAGCTGCCAAGGCGCGCTTGCCTGCGTCAGCAGACTGGCGCCACGTCG 475
368 AAGTATGCGCTGATTAAGATGTGTGTGTGTGACAAATGAGTGTGATG 427
QY 476 GGTGACACCCCGCGTGCCTCATGAGCGAGTCTCTTGGCGGCTCCACCTTCAGG 535
428 CTGTATGAGCGAGTGTGCGCTTCATGCTTCAAGTCTTCACTTCCTTCA 487
DB 536 TGCGCAGCTCACCACTTCTCCAGCGCGTCTCTTGAATGCTTGAATGAAG 595
488 TCTCTCAATGTGTCGACAAATTTCACAGACACTTATGATATCTTGAACAA 547
QY 596 TGATTAACCTTATGATCTTATCTGTTGCCAATTATGCAACAATCTTGATGA 655
548 CAGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 607
QY 656 TGCTTGAAGATGCTTGTATGATGATGATGATGATGATGATGATGATGAT 715

Db 608 TACTTCAAGATGATGATATATATGTAAGTCTAATGTTATATCAATACCCCTGTGATA 667
QY 716 AGTCATGCTCCTCAGATGTTATCAAGACATTAATTGATGACAGCCTTAAGCCTCGGATTA 775
Db 668 AGTCCTGGCTCATGATGATTTGAACAATCACTGATTCACGTCGTCACTTGCTGCTC 727
QY 776 TTTCACCAAAAACAAAGGATTTCTTAACAACATGTAGAGGATTCACAGACCTTG 835
Db 728 AAGGCTCTAAGACATGATGTTCTGATTAACATGTTAAGAGATACATAGACATTTG 787
QY 836 ACTCTGACGATGTAGAGTACGATGATGCTCTCACTGAAGAAGACAAATCTTGATG 895
Db 788 ACTCTGATGATGTTGATTAATTAAGAGATGTTCTTAAGAAGGAGCATACACTTGATG 847
QY 896 AAGCCTTTCGACTGACTACCCGCTCGAACATTTGATGCTCAAAATTAGAACGACCTTT 955
Db 848 AAGCAATGCTCTCAGATGCTGATGATGATGATGATGATGATGATGATGATGATGATG 907
QY 956 TGAATCTGCACTTGAAGATGTTAATCAAGAAACCAAGAGTTTACTGTTCTTCA 1015
Db 908 TAGATCTTTCATCTTCTGATGATGATGATGATGATGATGATGATGATGATGATG 967
QY 1016 TTGCTGAGAGGCGAAGAGAGCTTAATCATTTGCTCCCTTTAACAAGGAGCTCGAC 1075
Db 968 TTGCTGAGAGGAGAGAGAGCTTAATCATTTGCTCCCTTTAACAAGGAGCTCGAC 1027
QY 1076 CAGCAGATGTTACTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1135
Db 1028 CTTCGATCTGATCTGATCTGATCTGATCTGATCTGATCTGATCTGATCTGATCTGAT 1087
QY 1136 AAGGAGATTAATTTGGGGTTACCGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1195
Db 1088 TTGTAATTTTTCAGAGTCTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1147
QY 1196 TTGAAATCTGAG 1255
Db 1148 TTGAGATTTCTGAG 1207
QY 1256 TTGCAATGAG 1315
Db 1208 TTGCTATGAG 1267
QY 1316 TGGCAAGGATTAATGTTCCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1375
Db 1268 TGGCTAAATCTCTTTTCCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1327
QY 1376 GAACTTGGATTTTAACTGAGTCTGAGTCAATCACTCTGAAAGAGAGAGAGAGAG 1435
Db 1328 GCAAGTCTGATTTACCTCGCTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1387
QY 1436 CTGTTGATCTTAATGAG 1495
Db 1388 CAGTGGATTTGAG 1447
QY 1496 CACTCTCAAAAG 1555
Db 1448 CTCTCTCTGAACTGAG 1507
QY 1556 ACAAGATCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1609
Db 1508 ATAGATCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1567
QY 1610 CGGA-----GAAAG 1660
Db 1568 AAGAGGCTCACTGAAG 1627
QY 1661 TCCAG 1720
Db 1628 TCACAG 1687
QY 1721 CGATGGGG 1729

Db 1688 CTAAGGAG 1696
RESULT 2
US-09-519-232-1
; Sequence 1, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Mengiste, Michael
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
; LENGTH: 1767
; TYPE: DNA
; ORGANISM: Nicotiana tabacum
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(1764)
; OTHER INFORMATION: Full length tobacco cDNA sequence
US-09-519-232-1
Query Match 27.6%; Score 563.4; DB 4; Length 1767;
Best Local Similarity 64.3%; Pred. No. 2,4e-115;
Matches 884; Conservative 0; Mismatches 476; Indels 15; Gaps 2;
QY 356 AGAGGTGAGAGTGGGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 415
Db 341 AAGAGCATGAGGTGAG 400
QY 416 GCGTGGCGGACCTGGCCAAAGCGCGCTCTGCTCGACAGAGAGAGAGAGAGAGAGAG 475
Db 401 AAGTTAGAGCTTCACTTAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 460
QY 476 GGTGGCAAG 535
Db 461 CTGTGAG 520
QY 536 TCCCGAGCTCAACCACTCTTCCAGCGAGCTCTCTTGAATGCTTGAATAGGTGAAG 595
Db 521 TCTCTGAATTTGTTGCAAGTTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 580
QY 596 TGAATACCTTCTTATGATCTTATCTGTTGCCAATTATGCAAAATCTTGAATGAAC 655
Db 581 CAGACAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 640
QY 656 TCGTTGAAG 715
Db 641 TCGTTCAAG 700
QY 716 AGTATGCTTCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 775
Db 701 AAGCCTTCCCTCAAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 760
QY 776 TTTCAAG 835
Db 761 AAGGAGCTGAAG 820
QY 836 ACTCTGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 895
Db 821 ATTCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 880
QY 896 ATGGGTTGAG 955
Db 881 ATGATATGCTCTCCATTAATGCTGATGATGATGATGATGATGATGATGATGATGAT 940
QY 956 TGGATCTGCACTTGAAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1015

```

Db      941 TGGATTTTCACCTGCTGATTAATCAATCAAAATTCAGAGGATACAGGTCCTCATG 1000
Qy      1016 TTGCTCGAGGCGAGAGAGCTTAATATCATTTGTCCTCCCTTTTAAACCAAGGGGCTCGAC 1075
Db      1001 TTGCACCATGAGAGAAAGCCCTAAATATGTAGTGTCCCTTTTAAACCAAGGAGCTTAGC 1060
Qy      1076 CAGCATATGTAATTCATTCATGATGAGAGAAAGCGGTTCAATCTCAAAAAGATCAACAAC 1135
Db      1061 CTTCGATCTGACATCGATGAGAGAAAGCACTTCAATTCGCAAGAGGCTCAGTAGGC 1120
Qy      1136 AAGGGATTACTTTGGGGTTTACCGAAGAGAAACCTTCTCAAAAAGATAGTTATGTA 1195
Db      1121 TTGTGATTTCACTAGTATGCTCCGAGAGAAAGAAATCTGCTTCAATGATCGGTTATGCA 1180
Qy      1196 TTGAAATCTGAGCAAGCTGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1255
Db      1181 TTGAGATTCGAGCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1240
Qy      1256 TTGCAATGCGCAGGCTGAGAGCTACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1315
Db      1241 TTGCTATGAGAGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1300
Qy      1316 TGGCAAGATTAATGTTTCCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1375
Db      1301 TGGCTAACTCCCTTTTCCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1360
Qy      1376 GAACTTTGGAATTAACCTGGGTTCTGGGCAATCCACCTCTGAAAGAGAGAGAGAGAGAG 1435
Db      1361 GCACTTCTAGATTCCTGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1420
Qy      1436 CTGTTGATCTAAATGAAAGCTCTTTCAATTAATGAAAGAGAGAGAGAGAGAGAGAGAGAGAG 1495
Db      1421 CAGTAGATTTGAACGAGGCTCTTTCAAGATTAAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1480
Qy      1496 CACTCTCCAAACAGTGAAGCTCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1555
Db      1481 CACTCTCTGAAGCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1540
Qy      1556 ACAAGATCATGATGATGA-----AACGATCCGGTTCCCTCGAGAGAGAGAGAGAGAG 1609
Db      1541 ATTAAGATCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1600
Qy      1610 CGGA-----GAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1660
Db      1601 AAGAGGCTCACTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1660
Qy      1661 TCCACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1715
Db      1661 TCACTGAGGATTAAGAGAGATATGATTAAGATTAAGATTAAGATTAAGATTAAGATTAAG 1715

```

```

; LOCATION: (113)..(1927)
; OTHER INFORMATION: Full-length Sugarbeet cDNA sequence
US-09-519-232-63
Query Match      27 5%; Score 562; DB 4; Length 2296;
Best Local Similarity 61.2%; Pred. No. 5,4e-115;
Matches 1014; Conservative 0; Mismatches 605; Indels 39; Gaps 5;

Qy      86 CCGAGCTGAGAGGCGCTCCGCGGCTCTCCGAGCAACCTCCGCGGCGCTTCGCTCGCGCG 145
Db      261 CCGAGCGCGCGGCTCTCTTCCTCCGCTCTTCGAGAACTTCGAGCTGCTTTTCCAAACCTCCG 320
Qy      146 AGGACTTCGCGTTCCTCGCGAGAGCGCGAGCTCCCGCGGCGCGCGCGCGCGCGCG 205
Db      321 TTTCCTCTCCGAGCTCCGAGCTTTTCGCGAGAGCTTAAATCGTCTTTCGCGGATTCGCG 380
Qy      206 GCGAGCTCGGCGGCTGACCGCTGCTCTCCGCGGAGAGAGAGAGAGAGAGAGAGAGAGAG 265
Db      381 GTGAAAGTCCGCGCTTCATCGAGTGTCTCTCGCTCGAGAGCTGTTCTTTCGCGCTT 440
Qy      266 TCGCGCGCGCGCGCGCGCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 325
Db      441 TTGCTT-----GAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 490
Qy      326 AGCTCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 385
Db      491 AGGCTTAG-----CTTAAGAGATTAAGCTGATTTTGAAGTTGATTTGATTTGATTTGATTTG 545
Qy      386 GCGTGTGCTCGACTACCTCTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 445
Db      546 TTGCGGTTTAAAGTTTATTTGATTAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 605
Qy      446 TCTGCGTCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 505
Db      606 TTGTGTATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 665
Qy      506 AGGCTCTCTTCGCGCGCTCCACCTTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 565
Db      666 AGGTTCTTATTTGTCTCAAAATTCGAGATTCGAAATTCGATTTGATTTATCAAGAGAG 725
Qy      566 GTCTCTTGTATGCTCTTGTATAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 625
Db      726 ACCTACTGAGATTTCTTGAACAGATTCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 785
Qy      626 CCAACTTATGCAACAATCTTGATGAACCTGTTGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAG 685
Db      786 GTGAGATGTGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 845
Qy      686 GGTCAAACTTGCATGATTAATCTTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 745
Db      846 GTTCCGATTTATGACGTAAACCATTTGATTAATCTTTCGCGAGAGAGAGAGAGAGAGAGAG 905
Qy      746 TTATGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 805
Db      906 TTAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 965
Qy      806 AACATGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 865
Db      966 AGCATGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1025
Qy      866 TGCTCACTAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 925
Db      1026 TTTTAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1085
Qy      926 ATTGTGACTCCAAATTAACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 985
Db      1086 ATTGTGATCCAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1145
Qy      986 GAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1045
Db      1146 GAAATCTTAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1205
Qy      1046 TTGTCTCCCTTTTAAACCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1105

```

```

; US-09-519-232-63
; Sequence 63, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeton, John
; APPLICANT: Weisio, Laura
; APPLICANT: Williams, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 63
; LENGTH: 2296
; TYPE: DNA
; ORGANISM: Beta vulgaris
; FEATURE:
; NAME/KEY: CDS

```

```

Db      1206  TTGATCTTGTATACCAAGGAGCCATCCGCTGATTAACATCAGATGATTAATAAAG 1265
QY      1106  CGGTTCAATCTCAAAAAGACTAACAAACAGGGGATTAAGTTGGGGTTACCGAAGAG 1165
Db      1266  CACTGACATAGCAAAAGACACTAACAAAGCTGTGAGCTTATATAAACTACAGAACAG 1325
QY      1166  GAAACCTTTCTCCAAAGATAGGTTATGTATGAAATACCTGAGCACTGAAAGAGG 1225
Db      1326  GAAAGATGACCAAAAGATCGGTTGTGATTAATCTGAGCACTGAAAGAGAG 1385
QY      1226  ACCCACTCGAGAGAGATCAAGTTCTTCTGCAATGAGAGTGAAGTCTACAGAGAA 1285
Db      1386  AACCATTTGCTAGAGAGAGTTCTGTTCTCTTGGCAAGAGAGAGATGATCTGATGA 1445
QY      1286  GGTGCTGATCTTTGAAACCGAGTTGCTTTGGCAAGAGATTAAGTTCCATGAGCAAA 1345
Db      1446  AGCTATTAATCTTAAATAGAGTTGCACTTGCCTGCTCTTTCCATGAGAGCA 1505
QY      1346  GAGTAGCAATGATATGCTCAAGTGAAGTGAACCTTTGAAATTAAGTGGTTCTGATG 1405
Db      1506  AAGTGGCTATGATATCTCAAGTGAAGTGAACCTTTGAAATTAAGTGGTTCTGATG 1566
QY      1406  CAATCCACTCTCTGAAAGCAAGCAAGTGTGATCTTAATGAAAGTCTTTCAATPA 1465
Db      1557  CAAAGATATAGCTGATGACAGAAAGTGGTGAAGTGAAGTGGTCTTTATAT 1616
QY      1466  TGAAGAAGAACTTGTGCTCGATGACAGCACTCTCCAAACAGTGAAGTGGGAAAC 1525
Db      1617  TGAAGAAGAGCACTTGCAGAGATGAAGCACTGTAAACCTTTGAGCTTGGCAAGC 1676
QY      1526  GCTTTTCCGCGATGTTGAAGCTGCTGACAAATCATG-----GATCATGAAACTG 1579
Db      1677  GTTCTTTCCAGCTCTCCGATGTTCTTAATGAATATGAGCGCCGAAATCTTATCAC 1736
QY      1580  ATCCGCTTCCCTCGAGAGACAGTCCGCGA-----GAAGAGAGAGGTTTCT 1630
Db      1737  AGCTTCATTTTAAAGAAAGTACTCTCAAGAGAGAGCAAGAGAAAGAAACGATACC 1796
QY      1631  ATGACCTGAGAGATGTTCTTCAAGAGCAATTCACAGAGACCAAGAGAGAAAGCAAGT 1690
Db      1797  TTGAAGTCAAGAGCTTTAACTTAAGGCTTTTACAGAGCAAAAGAGAGTTTGACGTT 1856
QY      1691  CGGAGCTCTGCTGCTGCTGATCGATCGAATGATCGGG 1728
Db      1857  CTACATTAATCATTCGTCGTCGTCGATCCAAATGGGG 1894

```

RESULT 4

US-08-989-478-6
 ; Sequence 6, Application US/08989478
 ; Patent No. 5986082

GENERAL INFORMATION:

APPLICANT: Uknes, Scott
 APPLICANT: Hunt, Michelle
 APPLICANT: Steiner, Henry-John
 APPLICANT: Ryals, John
 TITLE OF INVENTION: ALTERED FORMS OF THE NIMI GENE CONFERRING
 NUMBER OF SEQUENCES: 32
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: No. 5986082artis Corporation
 STREET: 3054 Cornwallis Road
 CITY: Research Triangle Park
 STATE: No. 5986082th Carolina
 COUNTRY: USA
 ZIP: 27709

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
 COMPUTER: IBM PC compatible
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:

```

APPLICATION NUMBER: US/08/989,478
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/033,177
FILING DATE: 13-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,379
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,382
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,730
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,021
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,022
FILING DATE: 10-JAN-1997
ATTORNEY/AGENT INFORMATION:
NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF/5-21214/P1/CGC1911
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919) 541-8587
TELEFAX: (919) 541-8689
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 2011 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
ORIGINAL SOURCE:
ORGANISM: Arabidopsis thaliana
FEATURE:
NAME/KEY: misc feature
LOCATION: 1..2011
OTHER INFORMATION: /note="NIMI cDNA sequence"
NAME/KEY: CDS
LOCATION: 43..1824
OTHER INFORMATION: /product="NIMI protein"
US-08-989-478-6

```

Query Match

Best Local Similarity 20.6%; Score 420.6; DB 2; Length 2011;
 Matches 823; Conservative 0; Mismatches 557; Indels 30; Gaps 4;

```

QY      352  GCCGAGAGGTGAGGTGAGGTACGAGCGCTGCGCTGCTGACTACCTTAACG 411
Db      394  GCAAGAGATTACGAGTCGGTTTCGATGCGTGTGAGCTTTGGCTTATGTTACGC 453
QY      412  GCGCGCTCGGCACTGCCAAGCGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 471
Db      454  AGCAGAGTGAACCGCGCTTAAGAGTTCTGAATGCGACGAGAAATGCTGCAC 513
QY      472  GTCGGGTGCAACCGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 531
Db      514  GTGGCTTGGCGCGCGCGGATTCATGTTGAGGTTCTCTATTGGCTTATCTTC 573
QY      532  CAGGTGCGGAGCTCAACAACTCTTCAGCGCGCTGCTGCTGCTGCTGCTGCTGCTG 591
Db      574  AAGATCCCTGAATTAATCTCTATCAGAGGCACTTATGACGTTGAGCAAAATT 633
QY      592  GAAGTAGATTAACCTTCTATGATCTATCTGTTGCCAATTATGACAAATCTGCATG 651
Db      634  GTTATAGAGACACTTGTATTAATCAAGCTGCTTAATATATGTTAGGTAAGCTTATG 693
QY      652  AAAGCTTGAAGATGCTGATATGATGATGATGATGATGATGATGATGATGATGATG 711

```

Db 694 AAGCTATTGATAGATGTAAGAGATTATGTCAGCTCAATAGTATATGTTACTCT 753
Oy 712 GAGAACTCATTCCTCCAGATGTTATCAAGCATATTGATGACGCCCTAAGCCTCGA 771
Db 754 GAAAGTCTATTCGCCGGAAGAGCTGTTTAAAGATATATTGATAGACTTAAAGCTTGGT 813
Oy 772 TTAATTTCACGAGAAAAAAGGGATTCTTAACAAACATGTGAGAGATACAGAGCC 831
Db 814 TTGAGAGTACTTAAGTAAAG-----AAACATGTCTGATGTACATAAGGCA 861
Oy 832 CTGGAATCTGACGATGATAGACTAGTACAGATCTCTGCTACATGAAAGACAGCAATCTT 891
Db 862 CTGGAATCTGAGATGATATGATGATGATGATGATGATGATGATGATGATGATGATGAT 921
Oy 892 GATGATGCTGTTGACCTGACCTGACCTGACCTGACCTGACCTGACCTGACCTGACCTGAC 951
Db 922 GATGATGCTGTTGACCTGACCTGACCTGACCTGACCTGACCTGACCTGACCTGACCTGAC 981
Oy 952 CTTTGTGATCTGACCTGACCTGACCTGACCTGACCTGACCTGACCTGACCTGACCTGAC 1011
Db 982 CTTTGTGATCTGATCTTGGCCGATGTCACATAGAGATCCGAGGGATATACGGTCTT 1041
Oy 1012 CACATTTGCTCGAGGCGGAG 1071
Db 1042 CATGTTGCTGCGATGCGAG 1101
Oy 1072 CGAGCCGAGATGTTTCACTTCACTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1131
Db 1102 AGTGCATCGAG 1161
Oy 1133 AAAAGAGAGAGATTAATTTGGGGTTTACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1191
Db 1162 ATGGCGGTTGAATGTAATATATATCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1221
Oy 1192 TGTATTGAAATTAATGAG 1251
Db 1222 TGTATTGAAATTAATGAG 1281
Oy 1252 TGTATTGAAATTAATGAG 1311
Db 1282 TGTATTGAAATTAATGAG 1341
Oy 1312 GCTTTGGCAAGATTAATGTTTCCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1371
Db 1342 GCACTTGGTCAACGTCTTTTCCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1401
Oy 1372 GATGGAATCTTGAATTTAACTG---GGTTCTGTGCAATTCACCTCTGAAAGACA 1428
Db 1402 AAGGGAACATGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1461
Oy 1429 CGGACAACTGTTGATCTTAATGAAAGTCTTTCATTAATGAAAGAAACCTTAAGCTCGG 1488
Db 1462 AGAAGCACTACCGGGGTAAAGATGACCTTTAGATCTTAAGAAAGACATCAAGGTAGA 1521
Oy 1489 ATGACAGCACTCTCCAAAACAGTGAAGTCTGAGAAAGCGTTTTCGCGAGATTTGGAAC 1548
Db 1522 CTAAGAGCGCTTTCTAAACCGTGAACCTGAGAAAGAGATCTTCCGCGCTTTGGGCA 1581
Oy 1549 GTGCTCGAAGATCATG-----GATGATGAACTGATCCGTTTCCCTCGAAGAGAC 1602
Db 1582 GTGCTCGAAGATCATG-----GATGATGAACTGATCCGTTTCCCTCGAAGAGAC 1641
Oy 1603 AGCTCGGC-----GAG 1653
Db 1642 ACTGCTGAG 1701
Oy 1654 AAGGCACTTCCACGAG 1713
Db 1702 AAGGCTTTTATGATGAG 1761
Oy 1714 TCGACATCGATCGGGGCGCATTCGACCAAG 1743
Db 1762 TCCACATCGAATCAACCGGTGAGAAAGAG 1791

RESULT 5
US-08-989-478-7
Sequence 7, Application US/08989478
Patent No. 5986082
GENERAL INFORMATION:
APPLICANT: UKnes, Scott
APPLICANT: Hunt, Michelle
APPLICANT: Steiner, Henry-York
APPLICANT: Ryals, John
TITLE OF INVENTION: ALTERED FORMS OF THE NIM1 GENE CONFERRING
TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS
NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESSES:
ADDRESSEE: No. 5986082artis Corporation
STREET: 3054 Cornwallis Road
CITY: Research Triangle Park
STATE: No. 5986082th Carolina
COUNTRY: USA
ZIP: 27709
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/989,478
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/033,177
FILING DATE: 13-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,379
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,382
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,730
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,021
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,022
FILING DATE: 10-JAN-1997
ATTORNEY/AGENT INFORMATION:
NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF/5-21214/PL/CGC1911
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919) 541-8587
TELEFAX: (919) 541-8689
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 2011 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
FEATURE:
NAME/KEY: CDS
LOCATION: 43..1824
OTHER INFORMATION: /product= "altered form of NIM1"
OTHER INFORMATION: /note= "serine residues at amino acid positions 55 and 59 in
OTHER INFORMATION: wild-type NIM1 gene product have been changed to Alanine
OTHER INFORMATION: residues."
FEATURE:
NAME/KEY: misc_feature
LOCATION: 205..217
OTHER INFORMATION: /note= "nucleotides 205 and 217

Query Match	20.6%;	Score 420.6;	DB 2;	Length 2011;
Best Local Similarity	58.4%;	Pred. No. 1e-83;		
Matches 823; Conservative	0.0;	MinMatches 1;		

```

Db      1342 GCACCTTGCTCAACGCTCTTTTCCAAACGGAAGCAACAGCTGCATGAGATCGCCGAANT 1401
Qy      1372 GATGGAACCTTGGAAATTTAACTCG--GGTTCTGTGTCAAAATCCACCTTCGAAAGACAA 1428
Db      1402 AAGGGAAACATGTGAGTTCAATAGTGACTAGCTTCGAGCCCTGACCCGCTCTCACTGTGTGGA 1461
Qy      1429 CGACCAACTGTGTGATCTTAATGAAAGTCTCTTTCATPATGAAGAAAGAACACTTGTAGCTCG 1488
Db      1462 AGAACATCAACCGGTGTAAAGATAGACACCTTTCAGAAATCTTGAAGACATCAAAAGTAGA 1521
Qy      1489 ATGACAGCACTTCTCCAAAACAGTGAAGCTCGGGAACGCTTTTCCCGCGCATGTTCCGAC 1548
Db      1522 CTAAACACCGCTTTCTAAACCCGTGGAACCTCGGGAACCATCTTCCCGCGCTGTTCCGCA 1581
Qy      1549 GTGTCTGCACAAATCATG-----GATGATGAATCTGATCCGCTTTCCCTCGAAGAGAC 1602
Db      1582 GTGTCTGCACCAATTTATGAACTGTAGAGACTGTGACTCACTGAGCTTCGGAAGAACGAC 1641
Qy      1603 ACGTCCGCG-----GAGAAGAGAGAAGAGTTTCATGACCTCGAGAGATGTTCTTCAG 1653
Db      1642 ACTGCTGAGAAAACGACTACAAAAGAAAGAAAGATGACATGAAATACAAAGACACTPAAG 1701
Qy      1654 AAGGCATTCACAGAGACAAAGAGAGAGATACACGTCGCGGCTCTGTCTGTCTGTCTCA 1713
Db      1702 AAGCGCTTTTAGTGAAGACAAATTTGGAATTTAGGAATTTGTCTCTGACAGATTCGACTCT 1761
Qy      1714 TCACATGCGATCGGGGCCATTCGACCAAG 1743
Db      1762 TCACATCGAATCAACCGGTGGAAGAG 1791

RESULT 6
/ Sequence 6, Application US/08996685
/ Patent No. 6031153
/ GENERAL INFORMATION:
/ APPLICANT: Ryals, John
/ APPLICANT: Friedrich, Leslie
/ APPLICANT: Uknes, Scott
/ APPLICANT: Molina, Antonio
/ APPLICANT: Ruess, Wilhelm
/ APPLICANT: Knauf-Beiter, Gertrude
/ APPLICANT: Kung, Ruth
/ APPLICANT: Kessmann, Helmut
/ APPLICANT: Oostendorp, Michael
/ TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS
/ NUMBER OF SEQUENCES: 32
/ CORRESPONDENCE ADDRESS:
/ ADDRESSEE: No. 6031153artis Corporation
/ STREET: 3054 Cornwallis Road
/ CITY: Research Triangle Park
/ STATE: No. 6031153th Carolina
/ COUNTRY: USA
/ ZIP: 27709
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ COMPUTER: IBM PC Compatible
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: PatentIn Release #1.0, Version #1.30
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/08/996,685
/ FILING DATE:
/ CLASSIFICATION:
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 08/761,543
/ FILING DATE: 6-DEC-1996
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 60/034,378
/ FILING DATE: 27-DEC-1996
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 60/034,379
/ FILING DATE: 27-DEC-1996
/ PRIOR APPLICATION DATA:

```

```
APPLICATION NUMBER: US 60/034,382
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,730
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,021
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,022
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,024
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/875,015
FILING DATE: 16-JUL-1997
ATTORNEY/AGENT INFORMATION:
NAME: Weig, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF/5-21215/Pl/CGC1912
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919) 541-8587
TELEFAX: (919) 541-8689
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 2011 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: cDNA
ORIGINAL SOURCE:
ORGANISM: Arabidopsis thaliana
FEATURES:
NAME/KEY: misc feature
LOCATION: 1..2011
OTHER INFORMATION: /note= "NM1 cDNA sequence"
FEATURE:
NAME/KEY: CDS
LOCATION: 43..1824
OTHER INFORMATION: /product= "NM1 protein"
US-08-996-685-6

Query Match      20.6%; Score 420.6; DB 3; Length 2011;
Best Local Similarity 58.4%; Pred. No. 1e-83;
Matches 823; Conservative 0; Mismatches 557; Indels 30; Gaps 4;
```

```
Db 754 GAAAGTCATTGCCGGAAGAGCTGTGTTAAAGATATATAGACGTAAAGAGCTTGGT 813
Qy 772 TTAAATTCCACGAAAAACAGAGGATTTCTTAACAAACATGTAGAGAGATACAGAGCC 831
Db 814 TTGAGGATCTTAAAGTAAAG-----AAACATGTCTCGAATGTACTAAGGCA 861
Qy 832 CTTGACTGTGACGATGTAGAGTACTAGAGATGTCTCTCATCTGAAGAGACAGACAAATCTT 891
Db 862 CTTGACTGTGAGATGATATGAGTATGATGATGATGATGATGATGATGATGATGATGATGAT 921
Qy 892 GATGATGCGGTTTGCACTGCACTACCGCCGCAACATGTGACCTCCAAATTTCAACCCGAG 951
Db 922 GATGATGCGGTTGCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 981
Qy 952 CTTTGGATCTGCGACCTTGACAGATGTTATCATAGAAACCAAGAGGTTATCTGTTCTT 1011
Db 982 CTTTAAACCTTGATCTTGCCGATGTCAACCATAGAAATCCAGAGGAGATATACGGTGCTT 1041
Qy 1012 CACATTTGTCGAGCGAAGAGAGACCTTAATCATTTGTCTCCCTTTTAAACCAAGGGGCT 1071
Db 1042 CATGTTGCTGCGATGCGGAGAGCCACAAATTGATATCTCTATTTGAAAAAGGTGCA 1101
Qy 1072 CGACGACGAGATGTTAATTCATTTGAGAGAAAGGGTTCAATCTCAAAAAGACTAACA 1131
Db 1102 AGTGATCAAGAACCACTTTGAGAGTAGAACCGCATATGATGCAAAACAGCCACT 1161
Qy 1132 AAACAAGGGGATTAATCTTTGGGGTTACCGAAGAGAAACCTTCTCCAAAGATAGTTA 1191
Db 1162 ATGGCGGTTGATGATTAATATATCCCGAGCAATGCAACATTTCTCTCAAGGCCAGTA 1221
Qy 1192 TGTATTGAATTAATCTGAGAGCACTGTAAGAGAGAGCCCAACCTCGAGAGAGCATAGTT 1251
Db 1222 TGTGTAGAAATATCTAGAGCAAGAACCAACAGAAACAATTTCTAGAAATGTTCTCTCC 1281
Qy 1252 TCTCTTGCAATGGCAGGTGAGAGTCTACAGAGAAAGGTTCTGATTTAAAAACGAGTT 1311
Db 1282 TCTTTTGCAAGTGGCGCGATTAATGAATGACCTGCTGATTTTAAAAATAGAGTT 1341
Qy 1312 GCTTTGCAAGGATTAATGTTTCCGATGAGAGCAAGTAGATGATATTTGCTCAAGT 1371
Db 1342 GCACTTGTCAACAGCTTTTTCACAAAGAGCAACAGTGCATGAGATCCGCCAATG 1401
Qy 1372 GATGAACTTTGAAATTTAAGCTG---GGTTCTGTGCAATTCACCTCTGAAAGACA 1428
Db 1402 AAGGGAACATGTGAGTTCAATGATGACTGAGCTGAGCCGTCTCACTGGTACGAAG 1461
Qy 1428 CGGACAACTGTTGATCTAAATGAAGTCTTTTCAATATGAAGAAAGAACATTAAGTCCG 1488
Db 1462 AGAACATCACCGGGGTGTAAAGATAGCACTTTCAGAAATCTTGAAGAGCATCAAGTAA 1521
Qy 1489 ATGACAGCACTCTCCAAACAGTGAAGTCCGGAACAGCTTTTCCCGGATGTTGAAAC 1548
Db 1522 CTAAAGCCCTTTCTTAAGCCGTGAACTCGGAACAGATTTCTTCCCGGCTGTTGGCA 1581
Qy 1549 GTGCTCGACAGATCATG-----GATGATGAATGATCCGGTTTCCCTCGAAGAGAC 1602
Db 1582 GTGCTCGACAGATTTATGAATGTGAGACTTGACCTGACCTGAGCTTCACTGGTACGAAG 1641
Qy 1603 AGTCCGCG-----GAGAAAGAGAAAGAGTTTCATGACCTGAGAGATGTTCTTCAG 1653
Db 1642 ACTGCTGAAACAGACTACAAAGAGAGCAAGAGTACATGAGAAATACAAAGACACTAAG 1701
Qy 1654 AAGGCAATTCAGAGAGCAAGAGAGAGATGACAGGTCCGGGCTCGTGTGCTGTCA 1713
Db 1702 AAGGCTTTAGTGAAGCAATTTGGAATTAAGAAATTTGTCTCTGACAGATTCGACTTCT 1761
Qy 1714 TCGACATCGATCGGGCCATTGACCCAG 1743
Db 1762 TCCACATGAAATCAACCGGTGAAAGAG 1791

RESULT 7
US-08-996-685-7
```



```

? LOCATION: 43..1824 /product= "altered form of NIM1"
? OTHER INFORMATION: /note= "Serine residues at amino
? OTHER INFORMATION: acid positions 55 and 59 in
? OTHER INFORMATION: wild-type NIM1 gene product have been changed to Alanine
? FEATURE: residues."
? NAME/KEY: misc_feature
? LOCATION: 205..217 /note= "nucleotides 205 and 217
? OTHER INFORMATION: changed from T's to G's compared to wild-type sequence."
? OTHER INFORMATION:
US-08-996-685-7

```

Query Match	20.6%	Score 420.6;	DB 3;	Length 2011;
Best Local Similarity	58.4%	Pred. No. 1e-83;		
Matches 823; Conservative	0;	Mismatches 557;	Indels 30	

QY	352	GGCGAGAGGTGAGAGTCTGGGTACGAGACGCTCCGGCTGGTCTGCGACCTACCTCTACAC	411
Db	394	GCCAAGGATATACGAAGTCGGTTTGATTTGGTTGTGACCTTTTGGCTTATGTTTACGC	453
QY	412	GGCCCGCTCGCGGACCTGGCCCAAGGGCGGCTGCTCTGGCTGACGAGACCTGCGCCAC	471
Db	454	AGCAGAGTGAGACCGCCGCTTAAAGAGTTTCTGATGCGCAGAGAGAAATTGCTGCAC	513
QY	472	GTCCGGTCCACCCCGCCGCTTCATGCGCAGAGTCTCTTGCGCCGCTCCACCTTC	531
Db	514	GTGGCTTCCCGCGCGGTGATTTCAITGGTAGGTTCTCTATTGGCTTTATCTTC	573
QY	532	CAGTCCCGAGCGCACAACTCTTCCAGCGGCTCTCTTGATGTCTTGATAGATT	591
Db	574	AAGATCCCTGAATTAATTACTCTATACGAGGCACTTAATTGACGTTGTAGCAAGTT	633
QY	592	GAGGTAGATACTTGTATTGATCTTATCTGTGTGCACTTATGCAACAAATCTTGATG	651
Db	634	GTTATAGAGACACATTGGTATTACTCAAGCTTGCTAATATGTGTAAAGCTGTATG	693
QY	652	AACTCTTGAAGATGCTTGATATGTAGTCCGCTCAAACTTGACATGATTACTCTT	711
Db	694	AAGCTATGGATAGATGTAAAGATTATTTCAAGCTATATGATATGTTAGTTACTT	753
QY	712	GAGAACTCATTTCCCTCCAGATGTTATCAAGCAGATTATGATGACAGCCTAAGCTCGGA	771
Db	754	GAAGAACTCATTTCCCGAGAGACTTGTTAAAGATATTTGATAGAGCTAAAGAGCTGGT	813
QY	772	TTAATTTCAACGAAACAAAGGATTTTCTTAACAAATGTGAGAGATACACAGGCC	831
Db	814	TTGGAGATACCTTAAGTAAG-----AAACAATGTCTCGAATGTATCATTAAGCA	861
QY	832	CTTTCCTTGCATGTAGAGCTAGTCAGAGTCTGCTCACTGAGAGGACAGCAATCTT	891
Db	862	CTTTCCTGAGTATTTGAGTTAGTCAAGTTCTTTTAAAGAGATCACCAATCTA	921
QY	892	GATGATGGTTTGCATGCACTACCGCCGTGAACTTTGACTCCMAATTACAACGAG	951
Db	922	GATGATGGTGTCTCTTCAATTTGGTGTGATTTGCAATGTGAAACGCAACAGAT	981
QY	952	CTTTTGAATCTCGACCTTGCAGATGTTATCTATGAACCCAAAGGTTATCTGTCTT	1011
Db	982	CTTTTAAACTGATCTTGGCCATGTCAACCATAGAAATCCGAGGGATATACGTGCTT	1041
QY	1012	CACATTCCTCGAGGGGAGAGACCTTAATCATTTGTCTCCCTTTTAAACAAAGGGGCT	1071
Db	1042	CATGTTCTCGCATGTGGAGAGGCAACAATTGTACTATCTCTATTTGAAAAAGGTGCA	1101
QY	1072	CGAACCAAGATGTTACATTGCATGGAGAAAGCGGTCAAAATCTCAAAAAGACTAAC	1131
Db	1102	AGTGCATCAGAGCAACTTTGGAAAGTGAACCCCACTCAATTCGAAAAACAAGCACT	1161
QY	1132	AAACAAGGGGATTACTTTGGGTTTACCGAAGAAAGAAACCTTCTCCAAAGTAGTATTA	1191
Db	1162	ATGGCGGTTGAATGTATATATATCCCGAGCAATGCAAGACTTCTCTCAAAAGCCGACTA	1221
QY	1192	TGTATTGAAATATCGAGCAAGCTGAAAGAAAGGAGCCCACTCGGAGAACATCATGTT	1251

Db	1222	TGTTAGAAATATCTAGACAGAAAGACAAAGAAACAAATTCCTAGAGATGTTCTCTCC	1281
Qy	1252	TCCTTTCGAATGCGAGGTGAGAGTCTACGAGAAAGTTGCTGTATCTTGAACCGAGTT	1311
Db	1282	TCCTTTTGACATGGCGGCGCGATGAATTGAATGACGCTGCTCGATCTTGAATAATGAGTT	1341
Qy	1312	GCTTTGGCAAGATATTATGTTTCCATGGAAGCAAGATAGCAATGATATTGCTCAACTG	1371
Db	1342	GCACCTGCTCAACGCTCTTTTTCACACGGAAACAAGCTGCATAATGAGATGCGCGAATVG	1401
Qy	1372	GATGAACCTTTGGAATTTAACCTG---GGTTCGGTGCATAATCCACCTCTGAAAGACAA	1428
Db	1402	AAGGAACATGTGAGTCTATAGTACTAGCTGACCTGACCGCTTCACTGTGACGAAG	1461
Qy	1429	CGACAACTGTTGATCTTAATGAAAGTCTTTCAATATGAAAGAAACACTTAGCTCGG	1488
Db	1462	AGAACATCAACGGGGTGTAAAGATAGCACTTTGAGAACTTAAGAAAGACATCAAAAGTGA	1521
Qy	1489	ATGACAGACACTCTCCAAAACAGTGGAGCTCGGGAACCGCTTTTCCCGCATGTTCCAC	1548
Db	1522	CTAAAGAGGCTTTCTTAAACCGGTGAACCTCGGGAACCAATTCCTCCGCGTGTTCGCA	1581
Qy	1549	GTCGCTCGACAGATCATG-----GATGATGAACCTGATCCGGTTTCCCTCGGAAGAC	1602
Db	1582	GTCGCTCGACAGATTAATGAACTGTGAGGACTTGACTCAACTGGCTTGCGGAAGAACAC	1641
Qy	1603	ACGTCGCGG-----GAGAGAGAAAGGTTTTCATGACCTGACAGATGTTCTTCAG	1653
Db	1642	ACTGCTGAGAAACGACTACAAABAAGCAAGCAAGTACATGAAATACAGAGACACTAAG	1701
Qy	1654	AAGCATTTCCACGAGACAGAGAGAGATGACAGGTGCGGGCTCTGCTGCTGTCTCA	1713
Db	1702	AAGGCTTTTACTGTAGGACAAATTTGGAAATTAAGAAATTTGTCCCTGACGATTTGCACTTCT	1761
Qy	1714	TCGACATCGATCGGGGCCATTGCAACCAAGG	1743
Db	1762	TCGACATCGAATCAACCGGTGGAAGAGG	1791
RESULT 8			
US-08-989-478-11			
Sequence 11, Application US/08989478			
Patent No. 5986082			
GENERAL INFORMATION:			
APPLICANT: Ukena, Scott			
APPLICANT: Hunt, Michelle			
APPLICANT: Steiner, Henry-York			
APPLICANT: Ryals, John			
TITLE OF INVENTION: ALTERED FORMS OF THE NIMI GENE CONFERRING			
TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS			
NUMBER OF SEQUENCES: 32			
CORRESPONDENCE ADDRESS:			
ADDRESSEE: No. 5986082atlis Corporation			
STREET: 3054 Cornwallis Road			
CITY: Research Triangle Park			
STATE: No. 5986082th Carolina			
COUNTRY: USA			
ZIP: 27709			
COMPUTER READABLE FORM:			
MEDIUM TYPE: Floppy disk			
COMPUTER: IBM PC compatible			
OPERATING SYSTEM: PC-DOS/MS-DOS			
SOFTWARE: PatentIn Release #1.0, Version #1.30			
CURRENT APPLICATION DATA:			
APPLICATION NUMBER: US/08/989,478			
FILING DATE:			
CLASSIFICATION:			
PRIOR APPLICATION DATA:			
APPLICATION NUMBER: US 60/033,177			
FILING DATE: 13-DEC-1996			
PRIOR APPLICATION DATA:			
APPLICATION NUMBER: US 60/034,379			

Query Match	Best Local Similarity	Score	DB 2	Length	1608
Matches	730	Conservative	0	Mismatches	475
				Indels	15
				Gaps	2
QY	352	GCGGAGAGGTGAGGTGCGGGTACGAGGCGCTGCGCTGCTGCACTACTCTTACAGC	411		
Db	394	GCCAAAGATTACGAAAGTCGGTTTCGATTCGGTTGACGTGTTGGCTTATGTTTACAGC	453		
QY	412	GCGCGGTGGGCACTGCGCCAAAGCGGCGTCTGCTGGTGAAGAGACCTGCGCCAC	471		
Db	454	AGCAGAGTACAGCCCGCGCTAAAGAGTTTGAATGGCAGAGCAAGATTGCTGCAC	513		
QY	472	GTCGGGTGCAACCGCGCTCGGTTCAATGGCGCAGGCTCTTGGCGCGCTCCACTTC	531		
Db	514	GTCGCTTGGCGCGCGCGGTTGATTTCAATGTTGAGGTTCTTATTTGGCTTCACTTC	573		
QY	532	CAGTGCAGAGCTCAACCACTCTTCCAGCGCGCTCTCTTGAATGCTCTTGATTAAGTT	591		
Db	574	AGATCCCTGAATTAATTAATCTCTATCAGAGGCACTTATGGAAGTTGACAAAGTT	633		
QY	592	GAACTGATTAACCTTCTATTAATCTTATCTTGGCACTTATGCAACAATCTTGATG	651		
Db	634	GTTATAGAGACATTTGTTATTAACCAAGCTGCTAATATATGCTTAAGACCTTGATG	693		
QY	652	AACTGCTGAAAGATGCTTGAATATGATGCGGTCAAACTTGACATGATTACTCTT	711		
Db	694	AACTTATGATGATTAAGATTAAGATTAATGTCAAAGCTTAATGATGATTAAGTTAGCTT	753		
QY	712	GAGAACTATGCTTCAGATGTTATCAAGCAGATTAATGATGACGCTTAAGCTCGGA	771		
Db	754	GAAATATCTATTCGCGAAGAGCTTGTTAAGAGATTAATGATTAAGACGTAAAGAGCTTGGT	813		
QY	772	TTAATTTACCAAGAAACAAAGGATTTCTTAACAACAATGAGAGATACACAGGCC	831		
Db	814	TTGAGATGACTTAAGATAAG-----AAACATGCTCGAATGATCATTAAGCA	861		
QY	832	CTTGATCTGAGATGATTAAGCTATGACAGATGCTGCTCACTGAAGGACAGCAATCTT	891		
Db	862	CTTGATCTGAGATGATTAAGATTAAGCTATGACAGATGCTGCTTGAAGAGAGATCACCAATCTA	921		

```

QY 892 GATGATGCGTTTGCATGCTACGCGCTCGAAGATTGTGCTCAAAATTACACCGAG 951
Db 922 GATGATGCGTTGCTCTTCATTTGGCTGTGCTGATTTGCAATGTGAAGACCGCAACGAT 981
QY 952 CTTTGGATCTCGCATTTGCGAGATGTTATATATGAAGAACCAAGAGTTATGTTCTT 1011
Db 982 CTTTAAACCTTGAATCTTGGCCGATGTCACCATATGAAATCCGAGGGGATATACGGTCTT 1041
QY 1012 CACATGCTGCGAGCGCAAGAGCCCTAAATCATGTCTCTCTTTTAAACCAAGGGGCT 1071
Db 1042 CATGTCTGCGATGCGGAAGAGGCCACAAATTGATCTCTTATTTGAAAAAGGTGCA 1101
QY 1072 CGACACAGATGTTATATTCATGATGAGAAAAAGCGTTCAATCTCAAAAGACTATACA 1131
Db 1102 AGTGATCATAGAACCAATTTTGAAGGTAGAACCGCACTCATGATGCAAAACACCGACT 1161
QY 1132 AAACAAGGGAATTAATTTGGGGTTTACCGAAAGAAAACTTTCTCAAAAGATAGTTA 1191
Db 1162 ATGGCGGTGAAATGTAATATATCCGAGACAAATGCAATCTCTCAAAAGCGCACTA 1221
QY 1192 TGTATGAATATCTGAGCAAGCTGAAGAGGACCAACTCGAGAAAGCATGAGTT 1251
Db 1222 TGTATGAATATCTGAGCAAGGACCAAAACGAAATCTCTAGATGTTCTCC 1281
QY 1252 TCTCTTGAATGAGAGGTGAGAGTCAAGAGAAAGTTGCTGTATCTTGAAGACGAGTT 1311
Db 1282 TCTTTTGAATGAGAGGTGAGAGTCAAGAGTCAAGAGTCTGATCTTGAATATAGTT 1341
QY 1312 GCTTTGCAAGATTAATGTTTCCGATGAGGCAAGATGAGATGATTTGCAAGT 1371
Db 1342 GCACTGTCTCAACGCTTTTTCACGAAACCAAGTGTGAATGAGATGCGAAATG 1401
QY 1372 GATGCACTTGAATTTTACCTG---GTTCTGTGCAATTCACCTCTGAAAGCA 1428
Db 1402 AAGGGAATGTGAGTTATGATGATGATGATGATGATGATGATGATGATGATGATG 1461
QY 1429 CGGCAATGTTGATTTAATGAAGTCTTTCTTAATGAAGAAAGCACTTACGCG 1488
Db 1462 AGAATCATGACCGGCTGTAAGATGACCTTTGAGATCTTAAGAAAGCACTCAAGTAA 1521
QY 1489 ATGACAGCACTCTCCAAACAGTGGAGCTGGGAAACGCTTTTCCCGGATGTTGAAAC 1548
Db 1522 CTAAAGCGCTTTCTAAACCGTGAACCTCGGGAACGATTTCCCGGCTGTTGCGGA 1581
QY 1549 GTGCTGCAAAATCATGA 1568
Db 1582 GTGCTGCAACGATTTATGAA 1601

```

RESULT 9

```

US-08-996-685-11
/ Sequence 11, Application US/08996685
/ Patent No. 6031153
/ GENERAL INFORMATION:
/ APPLICANT: Ryals, John
/ APPLICANT: Friedrich, Leslie
/ APPLICANT: Uknes, Scott
/ APPLICANT: Molina, Antonio
/ APPLICANT: Rueser, Wilhelm
/ APPLICANT: Knaut-Belter, Gertrude
/ APPLICANT: Kung, Ruth
/ APPLICANT: Kessmann, Helmut
/ APPLICANT: Oostendorp, Michael
/ TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS
/ NUMBER OF SEQUENCES: 32
/ CORRESPONDENCE ADDRESS:
/ ADDRESS: No. 6031153artis Corporation
/ STREET: 3054 Cornwallis Road
/ CITY: Research Triangle Park
/ STATE: No. 6031153th Carolina
/ COUNTRY: USA
/ ZIP: 27709

```

```

/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Floppy disk
/ OPERATING SYSTEM: PC-DOS/MS-DOS
/ SOFTWARE: Patent Release #1.0, Version #1.30
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/08/996,685
/ FILING DATE:
/ CLASSIFICATION:
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 08/761,543
/ FILING DATE: 6-DEC-1996
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 60/034,378
/ FILING DATE: 27-DEC-1996
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 60/034,379
/ FILING DATE: 27-DEC-1996
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 60/034,382
/ FILING DATE: 27-DEC-1996
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 60/034,730
/ FILING DATE: 10-JAN-1997
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 60/035,021
/ FILING DATE: 10-JAN-1997
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 60/035,022
/ FILING DATE: 10-JAN-1997
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 60/035,024
/ FILING DATE: 10-JAN-1997
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: US 08/875,015
/ FILING DATE: 16-JUL-1997
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Meigs, J. Timothy
/ REGISTRATION NUMBER: 38,241
/ REFERENCE/DOCKET NUMBER: PF/5-21215/P1/CGC1912
/ TELEPHONE: (919) 541-8587
/ TELEFAX: (919) 541-8587
/ INFORMATION FOR SEQ ID NO: 11:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 1608 base pairs
/ TYPE: nucleic acid
/ STRANDEDNESS: single
/ TOPOLOGY: linear
/ MOLECULE TYPE: cDNA
/ FEATURE:
/ NAME/KEY: CDS
/ LOCATION: 43..1608
/ OTHER INFORMATION: /product= "Altered form of NIM1"
/ /
/ US-08-996-685-11
/
Query Match 20.2%; Score 411.8; DB 3; Length 1608;
Best Local Similarity 59.8%; Pred. No. 8,4e-82;
Matches 730; Conservative 0; Mismatches 475; Indels 15; Gaps 2;
QY 352 GCGAGAGGTGAGAGGTGCGGTGACGAGCGCTGCGTGTGCTGACATCACTACAGC 411
Db 394 GCGAAGATTACGAAGCGGTTGATGCGTTGACGTGTTGCTTATGTTACAGC 453
QY 412 GCGCGCTGCGCGACCTGCGCCAGCGCGCGCTGCTGCTGCGACAGACTGCGCCAGC 471
Db 454 AGCAGATGAGACCGCGCGCTTAAGAGATTCTGATGCGCAGACGAGAAATGCGCAC 513
QY 472 GTGGGTGCCACCGCGCGCTGCGTTCATGCGCAGGTCTCTTGGCGCGCTCCACCTTC 531
Db 514 GTGGCTTGCAGCGCGCGGTGATTTCAATGTTGAGAGTTCATTTATTTGCTTCACTTC 573

```


Db 4 GATTGGTGTGTGACTGTTTGGCTTATGTTTACAGACAGAGTAGACCGCCGCTTAAA 63
Qy 436 GCGGCGTGTCTTGCGTCCAGAGGACTGCGCCACGTGGGTGACACCCGCGTGGCG 495
Db 64 GGAGTTTCTGAATGCCAGACAGAAATGCTGCCACGTGGCTTGGCGGCGGTGGAT 123
Qy 496 TTGATGGCGGAGTCTCTTCCGCGCTTCCACTTCCAGGTGCGGAGCTCAACAATTC 555
Db 124 TTGATGTTGAGAGTTCTCTATTTGGCTTCAATCTTCAAGATCCCTGAATTAATCTCTC 183
Qy 556 TTCCAGCGGCGTCTCTTGATGTCTTATAGTTGAAGTAGATAAATCTTCTATTGATC 615
Db 184 TATCAGAGGCACTTATTTGACGTTGTACACAAATGTTTATAGAGGACATTTGTTATA 243
Qy 616 TTATGTTGCACTTATTCACAAATCTTGCATGAAATGCTGTAAGAAATGCTTGTAT 675
Db 244 CTCAAGCTTGTCTAATATATGTGTAAAGCTTGTATAGAGTATGATGATGATAAGAG 303
Qy 676 ATGCTAGTCCGCTCAAACTTGACATGATTAATCTTGAAGATGATGCTCCAGATGTT 735
Db 304 ATATATGTCAAGTCTAATATGATGATGATGATGATGATGATGATGATGATGATGAT 363
Qy 736 ATCAAGAGATTAATGATGACCGCTTGAAGCTTGAATTAATTTCAACGAAACAAAGGA 795
Db 364 GTTAAAGATTAATGATGACGTAAGAGCTTGTGAGAGTACCTTAAAGTAAAG--- 420
Qy 796 TTTCTTAACAAATGATGAGAGGATGACCAAGGCTTGAAGTATGATGATGATGATGAT 855
Db 421 -----AAACATGCTCGAATGTACATTAAGGACCTTGAAGTATGATGATGATGAT 855
Qy 856 GTGAGATGCTGTCTCACTGAAGACAGCAAACTTGTGATGATGATGATGATGATGATGAT 471
Db 472 GTCAAGTGTCTTGTGAAGAGGATCAACCAATGATGATGATGATGATGATGATGATGAT 915
Qy 916 GCGGTGACATTTGATCTCCAAATTAACAACGAGCTTGTGATCTGCACTTGAAGAT 975
Db 532 GCTGTGCAATTTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 591
Qy 976 GTTATCTAAGAAACCAAGGTTTATATGTTCTTCAATGCTGAGAGGCGAAGAG 1035
Db 592 GTCAACCAATGAGAAATCCGAGGGGATATACGTTGCTTCAATGCTGAGAGGAG 651
Qy 1036 CCTAAATCATTTCTCTCTTTTAAACAAGGGGCTGACACAGAGATTTAATTCAT 1095
Db 652 CCACAAATGATATCTATCTATTTGAAAAAGGAGGATGATGATGATGATGATGATGAT 711
Qy 1096 GGAGAAACCGCTTCAATCTCAAAAGACTAACAACCAAGGGGATTTAATTCAT 1155
Db 712 GTTGAACCGCTCTCATGATGATGATGATGATGATGATGATGATGATGATGATGAT 771
Qy 1156 ACCGAAAGAGAAACCTTCTCCAAAGATGATGATGATGATGATGATGATGATGATGAT 1215
Db 772 CCGAGAGCAATGCAAGATTTCTCAAGGCGGATGATGATGATGATGATGATGATGATGAT 831
Qy 1216 GAAAGAGGAGCCCAATCTCGAGAGATCAATTTCTTGAAGTGGAGGAGGAGT 1275
Db 832 GACAAACGAAACCAATTTCTTAGAGATGTTCTCTCTCTTTTGAAGGCGCGATGAA 891
Qy 1276 CTACGAGAGAGTGTCTGATTTGAAAAACGATGTTGTTGGCAAGATTAATGTTCCG 1335
Db 892 TTGAAGATGACGCTGCTGATCTTGAATAATGATGATGATGATGATGATGATGATGAT 951
Qy 1336 ATGAGAGCAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1395
Db 952 ACGGAGCAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1452
Qy 1396 ---GGTTCTGTGCAAAATCCCTCGAAAGACACGCAACATGTTGATCTTAATGAA 1452
Db 1012 ACTAGCTCGAGCTGACCGTCTGATGATGATGATGATGATGATGATGATGATGATGAT 1071
Qy 1453 AGTCTTTTAAATGAAAGAAACCTTAGCTGATGATGATGATGATGATGATGATGATGAT 1512
Db 1512

Db 1072 GCACCTTCAAGATCTAGAAAGACATCAAAAGTAAAGCGCTTTCTTAAACCGTG 1131
Qy 1513 GAGCTCGGAAAGCTTTTCCGCGATGTTGCAAGCTGCTGACAAATCATG----- 1566
Db 1132 GAGCTCGGAAAGCTTTTCCGCGATGTTGCAAGCTGCTGACAAATCATG----- 1566
Qy 1567 GATATGAAATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1191
Db 1192 GAGGACTGATCTCAAGCTGCTTCCGAGAAAGACACTGCTGAGAAACGACTCAAAAG 1251
Qy 1618 AGGAGAGGTTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1677
Db 1252 AAGCAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1311
Qy 1678 GAGATGACAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1737
Db 1312 GATTTAGAAATTTGCTGCTGACAGATTTGATGATGATGATGATGATGATGATGAT 1737
Qy 1738 CCAAGG 1743
Db 1372 AAGAGG 1377

RESULT 11
US-08-996-685-9
Sequence 9, Application US/08996685
Patent No. 6031153
GENERAL INFORMATION:
APPLICANT: Ryals, John
APPLICANT: Friedrich, Leslie
APPLICANT: Uknes, Scott
APPLICANT: Molina, Antonio
APPLICANT: Rues, Wilhelm
APPLICANT: Knaut, Belter, Gertrude
APPLICANT: Kung, Ruth
APPLICANT: Kesemann, Helmut
APPLICANT: Oostendorp, Michael
TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS
NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSEE: No. 6031153art's Corporation
STREET: 3054 Cornwallis Road
CITY: Research Triangle Park
STATE: No. 6031153th Carolina
COUNTRY: USA
ZIP: 27709
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
OPERATING SYSTEM: IBM PC compatible
SOFTWARE: Patent Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/996,685
FILING DATE: US/08/996,685
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/761,543
FILING DATE: 6-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,378
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,379
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,382
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,730
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,021
FILING DATE: 10-JAN-1997

...GAGCCTCCGGACGAGTGGAGCGTCATGTTGCTGCTCACTGAAGGACAGACAATTCT 890

```

; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Tesfay

```

```

; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 19
; LENGTH: 1803
; TYPE: DNA
; ORGANISM: Arabidopsis thaliana
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(1803)
; OTHER INFORMATION: AtNMLc4-2 genomic sequence
US-09-519-232-19

Query Match      18.6%; Score 380.4; DB 4; Length 1803;
Best Local Similarity 57.4%; Pred. No. 7.9e-75;
Matches 778; Conservative 0; Mismatches 551; Indels 27; Gaps 4;

QY 351 CGCGAGAGAGTGGAGTCCGGTACGAGCGCTGCGGCTGCTCGACTACCTTACAG 410
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 348 CGCGAAGAGTATAGAGAGTGGCTTTGACTCGGTTGGCGGCTTTGGCGTATTTACAG 407
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 411 CGGCGCGCTCGGCGACCTGCGCAAGCGCGGCTCTGCTGCGACGAGACTGCGCCA 470
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 408 CGGCAAGATGAGGTGCGCGCGAAGGAGGCTTGCTGCTGGTACGACGATTTGCCA 467
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 471 CGTGGGTGCGACCCCGCGCTGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 530
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 468 CGGCGCTGCGGTCGCAAGGTGATTCATGCTGAGGCTTCTTATCTGCTTCTGTTT 527
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 531 CGAGTGGCGAGCTGACCACTCTTCAGCGCGCTCTCTGATATCTTGTATAGGT 590
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 528 CCAAGATTCAAGATTGATTACTCTGTATGAGGAGGACTTCTTGAATTTGACAAAGT 587
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 591 TGAAGTAGATTAACCTTCTATGATCTTATCTGTTGCCAATTATGCAACAAATCTTGAT 650
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 588 TGAAGTCGAAGACATCTGCTTATTAATTCAGCTTGATTAATCTGATCAATATCAAA 647
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 651 GAAACTGCTTGAAGATGCTTGTATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 710
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 648 GAAAGCTTTGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 707
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 711 TGAGAGTCAATTCCTCCAGATGTATCAAGAGATTTATGATGACGCTTAAGCTCGG 770
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 708 TGAAGAGTCTTCTCTCAACATTTTCAAGCAATTCATAGACATCGCGAAGCGCTTG 767
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 771 ATTAAATTCACAGAAAAAAGGAGATTTCTTAACAAATGTGAGAGATACACAGAGC 830
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 768 TCTAGAGCCACTAAA-----CTAAGAAAGCATGTCAAGAACATATACAGGC 815
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 831 CCTTGACTCTGACGATGATGAGCTAGTCAAGATGCTGCTCACTGAAGAGACAAATCT 890
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 816 GCTAGACTCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 875
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 891 TGATAGTGGCTTGACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 950
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 876 CGATGAGGCGTATGCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT 935
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 951 GCTTTTGAATCTGCACTTGCAAGATGTATATCATAGAAACCAAGAGTTATATCTGTCT 1010
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 936 TCTCTCTGAGCTTGAGCTTGCGATGTAACTTAAGAAATCGACGGGATACACTGTGCT 995
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1011 TCAATTTGCTGCGAGCGAAGAGCTTAAATCATTTGTCTCCCTTTTAACTAAGGGGCG 1070
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 996 TCAATTTGCTGCGAGCGAAGAGCGAAGTGAATATCTTGTATATGAAGGGGCG 1055
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1071 TCACACAGCAGATGTATATCTTCAAGTGGAGAAAAAGCGTTCAATCTCAAAAGACTAAC 1130
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1056 AAATATTTTGAACAACATTTGATGTAGAACCGCTTTAGTATGTAAACGACTCAC 1115
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1131 AAAACAAGGAGATTACTTTGGGTTACGAAAGAGAAAACTTCTCCAAAAGTAGTT 1190
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

```

```

DB 1116 TAAAGCGATGACTACAAAACCTAGTACGAGCGGTAGCGCTTCTCTGAAAGCGGATT 1175
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1191 ATGTATTTAAATCTAGAGCAAGCTGAAGAGG--ACCCAACCTCGAGAGCATC 1247
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1176 ATGCATAGAGTACTTGAACATGAAACAAAATCTAGAAATTTTGTCCCTATAGAGCTTC 1235
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1248 AGTTCTCTTCAATGCAAGTGAAGTCTTACGAGAGAGTTGCTGTATCTTGAACCG 1307
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1236 ACTTCTCTTCCAGTAATCTCAAGAGAGTGAAGATGAGTTGCTGTATATGAAACCG 1295
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1308 AGTTGCTTTGGCAAGATTAATGTTTCCATGAGAGCAAGTATGCAATGATATTGCTCA 1367
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1296 AGTTGACTCTGCTGCACTTCTTCTTCCAGTGAACCTGAACCTGACAGGATATGCGCAA 1355
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1368 AGTGTAGAACTTTGGAATTTA--ACCTGGTCTGCTGCAATCCACTCTGTAAG 1424
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1356 ATTTGAGAAACATGCGAGTTTACAGCTTCTAGTCTGAGCGCTGATCATCAATTTGTGA 1415
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1425 ACAACGAGCAACTGTTGATCTAAATGAAGTCTTTCATATGAAGAAAGAACACTTAAC 1484
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1416 AAGCGGACATCACTGACCTTAAATATGCGCGCTTCCAAATCATAGAAAGCATTTGAG 1475
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1485 TCGATGACAGCACTCTCCAAAACAGTGAAGCTCGGAAAACGTTTTTCCCGGATGTC 1544
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1476 TAGACTTAAGAGCACTTTGTAAACCGTGAACCTGGGAAAACGCTTCTTCAAGATGTC 1535
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1545 GAAAGTGTGCAACAAATCATGATGATGAATGATGATGATGATGATGATGATGATGAT 1604
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1536 GCTTGATCACTTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1595
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1605 GTCCGCG-----GAGAAAGAAAGGTTTCAATGATGATGATGATGATGATGATGAT 1655
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1596 TCTTGAGAAACCGCTACAAAGAAAGTATCATGGAATCATCAAGAGACTCTGATGAA 1655
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
QY 1656 GGCATTCCACGAGACAAAGAGAGAAATGACAGTCT 1691
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
DB 1656 GACCTTTAGTGAAGCAAGAGAGATGTGAAAGTC 1691
    ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||

```

Search completed: January 23, 2005, 01:00:14
 Job time : 179 secs

1110 1234 5678 9012

GenCore version 5.1.6
Copyright (c) 1993 - 2005 CompuGen Ltd.

OM nucleic - nucleic search, using sw model

Run on: January 23, 2005, 00:37:18 ; Search time 1103 seconds
(without alignments)
10627.028 Million cell updates/sec

Title: US-09-294-539-3

Perfect score: 2040

Sequence: 1 atgagaccgcgcagccagcca.....caaaaaaaaaaaaaaaaaa 2040

Scoring table: IDENTITY NUC
Gapop 10.0 , Gapext 1.0

Searched: 4300275 seqs, 2872944193 residues

Total number of hits satisfying chosen parameters: 8600550

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

1: Published Applications_NA.*
2: /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq.*
3: /cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq.*
4: /cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq.*
5: /cgn2_6/ptodata/1/pubpna/US06_PUBCOMB.seq.*
6: /cgn2_6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq.*
7: /cgn2_6/ptodata/1/pubpna/US08_NEW_PUB.seq.*
8: /cgn2_6/ptodata/1/pubpna/US08_PUBCOMB.seq.*
9: /cgn2_6/ptodata/1/pubpna/US09A_PUBCOMB.seq.*
10: /cgn2_6/ptodata/1/pubpna/US09B_PUBCOMB.seq.*
11: /cgn2_6/ptodata/1/pubpna/US09C_PUBCOMB.seq.*
12: /cgn2_6/ptodata/1/pubpna/US09_NEW_PUB.seq.*
13: /cgn2_6/ptodata/1/pubpna/US10A_PUBCOMB.seq.*
14: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq.*
15: /cgn2_6/ptodata/1/pubpna/US10C_PUBCOMB.seq.*
16: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq.*
17: /cgn2_6/ptodata/1/pubpna/US10B_PUBCOMB.seq.*
18: /cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq.*
19: /cgn2_6/ptodata/1/pubpna/US11_NEW_PUB.seq.*
20: /cgn2_6/ptodata/1/pubpna/US60_NEW_PUB.seq.*
21: /cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2020.8	99.1	2194	10	US-09-848-841-9
2	1627.2	79.8	1848	17	US-10-437-963-51266
3	928.4	45.5	1773	16	US-10-374-780A-596
4	925.2	45.4	1767	18	US-10-425-115-61591
5	671.8	29.3	633	16	US-10-425-114-32356
6	598.6	28.9	1731	15	US-10-374-780A-595
7	590.2	28.3	1767	15	US-10-328-675A-3
8	563.4	27.6	2172	8	US-10-328-675A-1
9	563.4	27.6	2172	8	US-08-908-884-13
10	563.4	27.6	2172	9	US-09-908-923-13
11	562	27.5	2296	15	US-10-328-675A-63
12	447.2	21.9	461	17	US-10-437-963-51264

13	442.2	21.7	614	17	US-10-767-701-21927	Sequence 21927, A
14	422.2	20.7	2104	9	US-08-908-884-2	Sequence 2, Appl1
15	422.2	20.7	2104	8	US-09-908-923-2	Sequence 2, Appl1
16	422.2	20.7	2104	10	US-09-934-455-73	Sequence 73, Appl1
17	422.2	20.7	2104	15	US-10-925-068-241	Sequence 241, Appl1
18	422.2	20.7	2104	15	US-10-325-066A-953	Sequence 953, Appl1
19	422.2	20.7	2104	15	US-10-374-780A-47	Sequence 47, Appl1
20	381.8	18.7	1740	15	US-10-328-675A-5	Sequence 5, Appl1
21	380.4	18.6	1803	15	US-10-328-675A-19	Sequence 19, Appl1
22	380.4	18.6	1818	15	US-10-328-675A-71	Sequence 71, Appl1
23	380.4	18.6	2083	10	US-09-934-455-433	Sequence 433, Appl1
24	380.4	18.6	2083	16	US-10-374-780A-2091	Sequence 2091, Appl1
25	380.4	18.6	2083	16	US-10-412-699B-813	Sequence 813, Appl1
26	359.8	17.6	653	15	US-10-328-675A-45	Sequence 45, Appl1
27	351.6	17.2	2213	17	US-10-437-963-20382	Sequence 20382, A
28	344.2	16.9	2717	10	US-09-848-841-15	Sequence 15, Appl1
29	344.2	16.9	659	15	US-10-328-675A-29	Sequence 29, Appl1
30	333.6	16.4	1769	16	US-10-425-114-29122	Sequence 29122, A
31	333.6	16.4	1842	16	US-10-374-780A-1460	Sequence 1460, Appl1
32	333.6	16.4	1853	16	US-10-424-599-21385	Sequence 21385, A
33	317.2	15.5	2069	10	US-09-848-841-11	Sequence 11, Appl1
34	315.8	15.5	1428	15	US-10-318-780-1	Sequence 1, Appl1
35	315.8	15.5	2368	15	US-10-318-780-2	Sequence 2, Appl1
36	311.8	15.3	2154	13	US-10-047-593-1	Sequence 1, Appl1
37	311.4	15.3	2673	15	US-10-328-675A-73	Sequence 73, Appl1
38	309.8	15.2	1830	15	US-10-318-780-6	Sequence 6, Appl1
39	309.8	15.2	2120	15	US-10-318-780-8	Sequence 8, Appl1
40	306.2	15.0	1824	15	US-10-318-780-5	Sequence 5, Appl1
41	306.2	15.0	2420	15	US-10-318-780-7	Sequence 7, Appl1
42	294.4	14.4	651	16	US-10-424-599-13266	Sequence 13266, A
43	293.2	14.4	1940	17	US-10-767-701-13173	Sequence 13173, A
44	277	13.6	498	15	US-10-328-675A-37	Sequence 37, Appl1
45	276.6	13.6	498	15	US-10-328-675A-39	Sequence 39, Appl1

ALIGNMENTS

RESULT 1
US-09-848-841-9
; Sequence 9, Application US/09848841
; Publication No. US2003012411A1
; GENERAL INFORMATION:
; APPLICANT: E. I. du Pont de Nemours and Company
; APPLICANT: Butler, Karla
; APPLICANT: Falco, Carl
; APPLICANT: Famodu, Omolayo O.
; APPLICANT: Fang, Yiwen
; APPLICANT: Han, Feng
; APPLICANT: Heppard, Elmer
; APPLICANT: Liu, Zhan-Bin
; APPLICANT: Miao, Gou-Hau
; APPLICANT: Odell, Joan
; APPLICANT: Rafalski, Antoni
; TITLE OF INVENTION: Disease Resistance Factors
; FILE REFERENCE: B81252 US NAI
; CURRENT APPLICATION NUMBER: US/09/848,841
; CURRENT FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: 60/107,242
; PRIOR FILING DATE: 1998-11-05
; PRIOR APPLICATION NUMBER: US99/25,953
; PRIOR FILING DATE: 1999-10-04
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 9
; LENGTH: 2194
; TYPE: DNA
; ORGANISM: Oryza sativa
US-09-848-841-9
Query Match 99.1%; Score 2020.8; DB 10; Length 2194;
Best Local Similarity 99.4%; Pred. No. 0;
Matches 2028; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

```
QY 1 ATGAGCCGCGCAGCCAGCCAGCTGACCAACGCGTTCTCCGACTGGACAGCGCTCCGTG 60
Db 128 ATGAGAGCCGCGCAGCCAGCCAGCTGACCAACGCGTTCTCCGACTGGACAGCGCTCCGTG 187
QY 61 GAGGAGGAGGAGCGCCGAGCGCGAGCGCGAGCGCTGAGAGCGCTCGCGCGCTCTCCGACAC 120
Db 188 GAGGAGGAGGAGCGCCGAGCGCGAGCGCGAGCGCTGAGAGCGCTCGCGCGCTCTCCGACAC 247
QY 121 CTGCGCGGAGCGTTCCGCTCGCGCGAGGACTTGCCTTCTCCGCGAGCGCGCATCGCC 180
Db 248 CTGCGCGGAGCGTTCCGCTCGCGCGAGGACTTGCCTTCTCCGCGAGCGCGCATCGCC 307
QY 181 GTCCCGGCGGCGCGCGCGCGCGCGCGAGCTTGGAGGAGCGCTGCGCGCGCGCGCGCGCG 240
Db 308 GTCCCGGCGGCGCGCGCGCGCGCGCGAGCTTGGAGGAGCGCTGCGCGCGCGCGCGCGCG 367
QY 241 CGAGGCCCTTCTCGCGCGCGCGCTTTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 300
Db 368 CGAGGCCCTTCTCGCGCGCGCGCTTTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 427
QY 301 GCGGAGGATGAGCAGCGCAGAGCGCTGAGAGCTTCCGAGAGCTCTGCGCGCGCGCGCGAG 360
Db 428 GCGGAGGATGAGCAGCGCAGAGCGCTGAGAGCTTCCGAGAGCTCTGCGCGCGCGCGAG 487
QY 361 GTGAGAGTCGAGGATCAGAGCGCGCTGCGCGCGCTGAGAGCTTCTTCAAGCGCGCGCTC 420
Db 488 GTGAGAGTCGAGGATCAGAGCGCGCTGCGCGCGCTGAGAGCTTCTTCAAGCGCGCGCTC 547
QY 421 GCGGACCTGCGCCAGCGCGCGCGCTTTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 480
Db 548 GCGGACCTGCGCCAGCGCGCGCGCTTTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 607
QY 481 CACCCGCGCGCGCGCTTTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 540
Db 608 CACCCGCGCGCGCGCTTTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 667
QY 541 GAGCTCACCACTTTCGCGCGCGCGCTTTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 600
Db 668 GAGCTCACCACTTTCGCGCGCGCGCTTTCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 727
QY 601 AACCTTATGATCTTATCTGTTGCCAATTATGCAACAATCTTGAAGAACTGCTT 660
Db 728 AACCTTATGATCTTATCTGTTGCCAATTATGCAACAATCTTGAAGAACTGCTT 787
QY 661 GAAAGATGCTTGAATATGATGATCGGTCGCAACCTTGAATGATGATGATGATGATGAT 720
Db 788 GAAAGATGCTTGAATATGATGATCGGTCGCAACCTTGAATGATGATGATGATGATGAT 847
QY 721 TTGCTTCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 780
Db 848 TTGCTTCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 907
QY 781 CCGAAGAAACAGGAGATTTCTTAAACAAACATGAGAGAGATACAGAGAGCGCTTGAAGCT 840
Db 908 CCGAAGAAACAGGAGATTTCTTAAACAAACATGAGAGAGATACAGAGAGCGCTTGAAGCT 967
QY 841 GAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 900
Db 968 GAGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1027
QY 901 TTTCGACTGACTACGCGCTCGACATTTGATGATGATGATGATGATGATGATGATGAT 960
Db 1028 TTTCGACTGACTACGCGCTCGACATTTGATGATGATGATGATGATGATGATGATGAT 1087
QY 961 CTGCACTTGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1020
Db 1088 CTGCACTTGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1147
QY 1021 GCGAGGCGAAGAGCGCTTAAATCATTTGCTCTCTTTTAAACAGAGGCGCTGACAGAGA 1080
Db 1148 GCGAGGCGAAGAGCGCTTAAATCATTTGCTCTCTTTTAAACAGAGGCGCTGACAGAGA 1207

QY 1081 GATGTTACATTCGATGAGAGAAACCGCTTCAATCTCAAAAAGACTTAAACAAAGAG 1140
Db 1208 GATGTTACATTCGATGAGAGAAACCGCTTCAATCTCAAAAAGACTTAAACAAAGAG 1267
QY 1141 GATTACTTTGGGGTTACCGAAGAGAGAAACCTTCTCCAAAAGATGATGATGATGATGAT 1200
Db 1268 GATTACTTTGGGGTTACCGAAGAGAGAAACCTTCTCCAAAAGATGATGATGATGATGAT 1327
QY 1201 ATACTGAGACAGCTGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1260
Db 1328 ATACTGAGACAGCTGAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1387
QY 1261 ATGAGAGGATGAGAGCTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1320
Db 1388 ATGAGAGGATGAGAGCTTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1447
QY 1321 AGGATTAATGTTTCCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1380
Db 1448 AGGATTAATGTTTCCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1507
QY 1381 TTGAAATTTTAACTGAGGTTCTGTCGCAATTCACCTCTGAAAGAGAGAGAGAGAGAG 1440
Db 1508 TTGAAATTTTAACTGAGGTTCTGTCGCAATTCACCTCTGAAAGAGAGAGAGAGAGAG 1567
QY 1441 GATCTTAAATGAAAGTCTTTTCAATGATGAAAGAGAGAGAGAGAGAGAGAGAGAGAG 1500
Db 1568 GATCTTAAATGAAAGTCTTTTCAATGATGAAAGAGAGAGAGAGAGAGAGAGAGAGAG 1627
QY 1501 TCCAAAACAGTGGAGCTCGGAGAAACGCTTTTCCCGAGATGTTGAGAGAGAGAGAGAG 1560
Db 1628 TCCAAAACAGTGGAGCTCGGAGAAACGCTTTTCCCGAGATGTTGAGAGAGAGAGAGAG 1687
QY 1561 ATCATGATGATGAAAGTCCGATGATGATGATGATGATGATGATGATGATGATGATGATG 1620
Db 1688 ATCATGATGATGAAAGTCCGATGATGATGATGATGATGATGATGATGATGATGATGAT 1747
QY 1621 AAGAGTTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1680
Db 1748 AAGAGTTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1807
QY 1681 AATGACAGTGGGAGCTCGTCTGATGATGATGATGATGATGATGATGATGATGATGATG 1740
Db 1808 AATGACAGTGGGAGCTCGTCTGATGATGATGATGATGATGATGATGATGATGATGATG 1867
QY 1741 AGGAGATGAAACAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1800
Db 1868 AGGAGATGAAACAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1927
QY 1801 AGCTACTCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1860
Db 1928 AGCTACTCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1987
QY 1861 AGGCTTGAACAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1920
Db 1988 AGGCTTGAACAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2047
QY 1921 TCATAGTGTGTTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1980
Db 2048 TCATAGTGTGTTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2107
QY 1981 TTTCAGTGTGTTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2040
Db 2108 TTTCAGTGTGTTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 2167

RESULT 2
US-10-437-963-51266
; Sequence 51266, Application US/10437963
; Publication No. US2004012343A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa, Thomas J.
; APPLICANT: Kovalic, David K.
; APPLICANT: Zhou, Yihua
```

APPLICANT: Cao, Yongwei
APPLICANT: Wu, Wei
APPLICANT: Boukharov, Andrey A.
APPLICANT: Barbazuk, Brad
APPLICANT: Li, Ping
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated with
FILE REFERENCE: 38-21(53221)B
CURRENT APPLICATION NUMBER: US/10/437,963
CURRENT FILING DATE: 2003-05-14
NUMBER OF SEQ. ID NOS: 204966
SEQ. ID NO 51266
LENGTH: 1848
TYPE: DNA
ORGANISM: Oryza sativa
FEATURE:
OTHER INFORMATION: Clone ID: PAT_MRT4530_53675C.1
US-10-437-963-51266

Query Match 79.8%; Score 1627.2; DB 17; Length 1848;
Best Local Similarity 94.2%; Pred. No. 0;
Matches 1741; Conservative 0; Mismatches 8; Indels 99; Gaps 1;

QY 1 ATGAGAGCCGCGACAGCCAGCTCAACAGCGCTTCTCGACTCGGACAGCGCGTCCGTG 60
DB 1 ATGAGAGCCGCGACAGCCAGCTCAACAGCGCTTCTCGACTCGGACAGCGCGTCCGTG 60
QY 61 GAGAGAGGAGGAGCGCGAGCGCGAGCGCGAGCGTGGAGGCGCTCGCGCGCTCTCGAAC 120
DB 61 GAGAGAGGAGGAGCGCGAGCGCGAGCGCGAGCGTGGAGGCGCTCGCGCGCTCTCGAAC 120
QY 121 CTGCGCGCGCGCTTCCGCTCGCGAGAGCTTCCGCTCGCGAGCGCGAGCGCGATCGCC 180
DB 121 CTGCGCGCGCGCTTCCGCTCGCGAGAGCTTCCGCTCGCGAGCGCGAGCGCGATCGCC 180
QY 181 GTCCCGGCGCGCGCGCGCGCGCGAGCTCGCGAGCGCGCTCGCGAGCGCGCTCGCGCG 240
DB 181 GTCCCGGCGCGCGCGCGCGCGCGAGCTCGCGAGCGCGCTCGCGAGCGCGCTCGCGCG 240
QY 241 CGGAGCGCGCTTCTCGCGCGCGCGCTTCCGCGCGCGCGCGCGCGCGCGCGCGCGCG 300
DB 241 CGGAGCGCGCTTCTCGCGCGCGCGCTTCCGCGCGCGCGCGCGCGCGCGCGCGCGCG 300
QY 301 GCGAGAGATGCGAGCGAGAGCTGAGCTCCGGAGCTCTCGCGCGCGCGCGCGAGAG 360
DB 301 GCGAGAGATGCGCGAGAGCTGAGCTCCGGAGCTCTCGCGCGCGCGCGCGAGAG 360
QY 361 GTGAGAGTGGGATACGAGGCGCTGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 420
DB 361 GTGAGAGTGGGATACGAGGCGCTGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 420
QY 421 GGGAGCTGCGCAAGGCGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 480
DB 421 GGGAGCTGCGCAAGGCGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 480
QY 481 CACCGCGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 540
DB 481 CACCGCGCGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 540
QY 541 GAGCTCAACCACTCTTCCAGCGCGCTCTCTGATGCTGCTGCTGCTGCTGCTGCTGCT 600
DB 541 GAGCTCAACCACTCTTCCAGCGCGCTCTCTGATGCTGCTGCTGCTGCTGCTGCTGCT 600
QY 601 AACCTTATATGATCTTATCTGTTGCCAATCTATGCAACAATCTTGCAATGAACTGCT 660
DB 601 AACCTTATATGATCTTATCTGTTGCCAATCTATGCAACAATCTTGCAATGAACTGCT 660
QY 661 GAAAGATGCTTATATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 720
DB 661 GAAAGATGCTTATATGATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 720
QY 721 TTGCTTCAGATGTTATCAAGAGATTTATGATGCAAGCTTAAGCTCGATTAATTCA 780
DB 721 TTGCTTCAGATGTTATCAAGAGATTTATGATGCAAGCTTAAGCTCGATTAATTCA 780

DB 721 TTGCTTCAGATGTTATCAAGAGATTTATGATGCAAGCTTAAGCTCGATTAATTCA 780
QY 781 CCAGAAAAGAGGATTTCTTCAACAATGTGAGAGGATACAGAGGCTTGACTCT 840
DB 781 CCAGAAAAGAGGATTTCTTCAACAATGTGAGAGGATACAGAGGCTTGACTCT 840
QY 841 GACGATGAGGCTTATGAGATGCTGCTCACTGAAAGACAGCAAACTTGTATGATGCG 900
DB 841 GACGATGAGGCTTATGAGATGCTGCTCACTGAAAGACAGCAAACTTGTATGATGCG 900
QY 901 TTGCACTGCACTAGCGCGCTGCAAACTTGTGACTCCAAATTTCAACCGGCTTTGGAT 960
DB 901 TTGCACTGCACTAGCGCGCTGCAAACTTGTGACTCCAAATTTCAACCGGCTTTGGAT 960
QY 961 CTGCACTTGCAGATGTTATATCAAGAAACCAAGAGGTTATCTGTTCTTCAATTCCT 1020
DB 961 CTGCACTTGCAGATGTTATATCAAGAAACCAAGAGGTTATCTGTTCTTCAATTCCT 1020
QY 1021 GCGAGCGAAGAGAGCTTAAATCATTTCTCTCTTTTAAACAAGCGGCTCGACCA 1080
DB 1021 GCGAGCGAAGAGAGCTTAAATCATTTCTCTCTTTTAAACAAGCGGCTCGGCGCA 1080
QY 1081 GATGTTAATTCGATGAGGAGAAAGCGTTCAATCTCAAAAAGACTTAACAAACAAGG 1140
DB 1081 GATGTTAATTCGATGAGGAGAAAGCGTTCAATCTCAAAAAGACTTAACAAACAAGG 1140
QY 1141 GATTTACTTTGGGCTTCCGAGAAAGAAACCTTCTCAAAAAGATAGTTATATTGAA 1200
DB 1141 GATTTACTTTGGGCTTCCGAGAAAGAAACCTTCTCAAAAAGATAGTTATATTGAA 1200
QY 1201 ATACTGAGAGCACTGAAAGAAAGGACCAACAATCGGAGAGCATCATGTTCTTTGCA 1260
DB 1201 ATACTGAGAGCACTGAAAGAAAGGACCAACAATCGGAGAGCATCATGTTCTTTGCA 1260
QY 1261 ATGCGAGTGAAGTCTTAAGAGAAAGTTGCTGCTTATCTTGAACCG----- 1307
DB 1261 ATGCGAGTGAAGTCTTAAGAGAAAGTTGCTGCTTATCTTGAACCGAGGTTAAC 1320
QY 1308 ----- 1307
DB 1321 ATATATCATATAGGTTCAATATGCTGCTTCTTGGAAATTAACGTGTTTGGCTTGGC 1380
QY 1308 -----AGTTGCTTTGGCAAGATTATGTTCCGATGAG 1341
DB 1381 AACAAAGAGAGTTTGTACATGATGTTGCTTTGGCGAGATTATGTTCCGATGAG 1440
QY 1342 GCAAGATGACATGATATGCTCAAGTGAATGAACTTTGAAATTTAACTGGGTTCT 1401
DB 1441 GCAAGATGACATGATATGCTCAAGTGAATGAACTTTGAAATTTAACTGGGTTCT 1500
QY 1402 GGTGCAAAATCCACTCTCTGAAAGACAACGGAACAATGTTGATCTAAATGAAAGCTTTTC 1461
DB 1501 GGTGCAAAATCCACTCTCTGAAAGACAACGGAACAATGTTGATCTAAATGAAAGCTTTTC 1560
QY 1462 ATATGAAAGAAACAATTAAGCTCGATGACAGCACTCTCAAAACAGTGAAGCTTGGG 1521
DB 1561 ATATGAAAGAAACAATTAAGCTCGATGACAGCACTCTCAAAACAGTGAAGCTTGGG 1620
QY 1522 AAAGCTTTTCCCGGAGTGTGAACGTGCTGACAAATCATGATGATGAAACTGAT 1581
DB 1621 AAAGCTTTTCCCGGAGTGTGAACGTGCTGACAAATCATGATGATGAAACTGAT 1680
QY 1582 CCGGTTTCCCTGGAGAGACAGTCCGCGGAGAGAGGAGTTTCATGACCTTGAC 1641
DB 1681 CCGGTTTCCCTGGAGAGACAGTCCGCGGAGAGAGGAGTTTCATGACCTTGAC 1740
QY 1642 GATGTTCTTCAGAGGATTTCCAGAGACAGAGAGAGATGACAGGCTGGGCTTCTG 1701
DB 1741 GATGTTCTTCAGAGGATTTCCAGAGACAGAGAGAGATGACAGGCTGGGCTTCTG 1800
QY 1702 TCGTGTGCTCATGACATGATCGGGGCTATTCGACCAAGAGAGATGA 1749
DB 1801 TCGTGTGCTCATGACATGATCGGGGCTATTCGACCAAGAGAGATGA 1848

RESULT 3
US-10-374-780A-596
Sequence 596, Application US/10374780A
Publication No. US20040019927A1
GENERAL INFORMATION:
APPLICANT: Sherman, Bradley K
APPLICANT: Riechmann, Jose Luis
APPLICANT: Jiang, Cai-Zhong
APPLICANT: Heard, Jacqueline E
APPLICANT: Haake, Volker
APPLICANT: Creelman, Robert A
APPLICANT: Ratcliffe, Oliver
APPLICANT: Adam, Luc J
APPLICANT: Reuber, T. Lynne
APPLICANT: Keddie, James
APPLICANT: Brown, Pierre E
APPLICANT: Pilgrim, Marsha L
APPLICANT: Dubeil III, Arnold T
APPLICANT: Pineda, Omalra
APPLICANT: Yu, Guo-Liang
TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES IN PLANTS
FILE REFERENCE: MBI-0047 CIP
CURRENT APPLICATION NUMBER: US/10/374,780A
CURRENT FILING DATE: 2003-02-25
PRIOR APPLICATION NUMBER: 09/837,944
PRIOR FILING DATE: 2001-04-18
PRIOR APPLICATION NUMBER: 60/310,847
PRIOR FILING DATE: 2001-08-09
PRIOR APPLICATION NUMBER: 09/934,455
PRIOR FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/336,049
PRIOR FILING DATE: 2001-11-19
PRIOR APPLICATION NUMBER: 60/338,692
PRIOR FILING DATE: 2001-12-11
PRIOR APPLICATION NUMBER: 10/171,468
PRIOR FILING DATE: 2002-06-14
PRIOR APPLICATION NUMBER: 10/225,066
PRIOR FILING DATE: 2002-08-09
PRIOR APPLICATION NUMBER: 10/225,067
PRIOR FILING DATE: 2002-08-09
PRIOR APPLICATION NUMBER: 10/225,068
NUMBER OF SEQ ID NOS: 2906
SOFTWARE: PatentIn version 3.2
SEQ ID NO 596
LENGTH: 1773
TYPE: DNA
ORGANISM: Zea mays
FEATURE:
OTHER INFORMATION: Predicted polypeptide sequence is orthologous to G278
US-10-374-780A-596

Query Match 45.5%; Score 928.4; DB 16; Length 1773;
Best Local Similarity 82.3%; Pred. No. 8.4e-209;
Matches 1109; Conservative 0; Mismatches 221; Indels 18; Gaps 3;

QY 418 GTGCGGACCTGCGCCAAAGGCGCGCTCTCTGTCGACGAGAGA---CTGCGCCACAGTC 474
DB 1 GTGCGGCGCTGCGCCAAAGGCGCGCTCTCTGTCGACGAGAGAGCGCTGCGCGCAAGTC 60
QY 475 GGTGTCACATCCCGCGTGTGCTCATGCGAGCGAGCGCTCTGCGCGCGCTGCACTTTCAG 534
DB 61 GGCTGCGCGCGCGCGCTGCTCATGCGAGCGAGCTCTCTGCGCGCGCTGCACTTTCAGC 120
QY 535 GTGCGCGAGCTGACAACTCTTTCAGAGGCGTCTCTGATGCTTGAATTAAGTTGAA 594
DB 121 GTGCGCGAGCTGACAACTCTTTCAGAGGCGCGCTCTGATGCTTGAATTAAGTTGAA 180
QY 595 GTAGATACTTCTATGATCTTATGTTGCGCAACTTATGCAAAATTTGATGAA 654
DB 181 GTGACAACTCTGATGCTTATCTGTTGCGCAACTTATGCAAAATTTGATGAA 240

QY 655 CTGCTTGAAGAATGCTTGAATGATGATCGGTCAAACTTGACATGATTACTCTTGAG 714
DB 241 CTGCTTGAAGAGTCTCTGATGATGATGATGATGATGATGATGATGATGATGATGAT 300
QY 715 AAGTCAATGCTCCAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 774
DB 301 AAAAAGTTGCTCCAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 360
QY 775 ATTTCACCAAAAAGAGATTTCTTAAACAAATGTGAGAGATTCACAGAGCTT 834
DB 361 GTTTCACCGAAGACAAAGGCTTCTTAAATACATGATGATGATGATGATGATGATGAT 420
QY 835 GACTGACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 894
DB 421 GATTCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 480
QY 895 GATGCTTTGACATGACCTACCGCGTTCGACATTTGTGACCTCAAAATTAACAGCTT 954
DB 481 GATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 540
QY 955 TTGATCTGCACTTGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1014
DB 541 CTGATCTGCGCTTGCAGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 600
QY 1015 ATTGCTGCGAGCGAAGAGACCTTAAATCATGCTTCTCTTTTAAACAGAGGCTTCA 1074
DB 601 ATTGCTGCTGATGAGAGGAGAACTTAAATCATGCTTCTCTTTTAAACAGAGGCTTCA 660
QY 1075 CCAGCAGATGTTTACATTCGATGAGAGAAAGCGGTTCAATCTCAAAAGACTTACAA 1134
DB 661 CCATAGACCTCAATTTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 720
QY 1135 CAAGGATTTACTTTGGGTTTACCGAAGAGAAACCTTCTCAAAAGATGATGATGAT 1194
DB 721 CATGGGATTTACTTTGGGCTTACCGAAGAGAAACCTTCTCTTAAAGATGATGATGAT 780
QY 1195 ATTGAATATCGAGAGCAAGCTGAAAGAGACCCCAACCTGCGAAGAGATCACTTCT 1254
DB 781 ATTGAGTATCTAGAGCAAGCTGAAAGAGACCCCAACCTGCGAAGAGATCACTTCT 840
QY 1255 CTTCGATGCGAGTGAAGTCTACGAGAGAGGTTGCTGATGATGATGATGATGATGAT 1314
DB 841 CTTCGATGAGAGAGAGTCTGCGGCTGAGAGGCTTCTTCTGAAACCGAGTTGCT 900
QY 1315 TTGCAAGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1374
DB 901 CTAGCAAGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 960
QY 1375 GGAATCTTGAATTTAACTGAGGTTCTGTGCAATCCACCTCTGAAAGCAAGAGCA 1434
DB 961 GGAACACTGGAATTTCACTTGTGATGATGATGATGATGATGATGATGATGATGAT 1020
QY 1435 ACTGTTGATCTTAAAGAAAGTCTTCTTCAATGAAAGAAAGCACTTACCTGATGAC 1494
DB 1021 ---GTTGACCTGAAAGAAAGTCTTCTTCAATGAAAGAAAGCACTTACCTGATGAC 1077
QY 1495 GCACTTCTCAAAAGAGTGAAGCTGAGAAAGCTTTTCCCGGATGATGATGATGATGAT 1554
DB 1078 GCCCTATCAAGAGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT 1137
QY 1555 GACAAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1614
DB 1138 GACAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1197
QY 1615 AAGAGAAAGAGTTCATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1674
DB 1198 AAGAGAGAGAGTTCATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1257
QY 1675 GAGAGAAATGACAGTGTGGG-----CTCTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 1722
DB 1258 GAGAGAAAGAGAGT 1317

FEATURE:
OTHER INFORMATION: Clone ID: UC-ZMFLB7300C06_FLI
US-10-425-114-32356

Query Match 32.9%; Score 671.8; DB 16; Length 1326;
Best Local Similarity 80.6%; Pred. No. 2.9e-148;
Matches 816; Conservative 0; Mismatches 182; Indels 15; Gaps 2;

```
QY 750 TGAATGACGCTTAAGCTCGGATTAAATTTTCAACGAGAAACAGGGAATTTCTTAAGAAACA 809
DB 1 TGAATGACGCTTAAGCTCGGATTAAATTTTCAACGAGAAACAGGGAATTTCTTAAGAAACA 809
QY 810 TGTGAGGAGATACACAGAGCCCTTGACTGACGATGTAGAGCTAGTGAAGTGTGCT 869
DB 61 TGTGAGGAGATACACAGAGCTGAGTGTGATGAGAGTGAAGTGTGCTAGTGTGCTACT 120
QY 870 CACTGAAGACACAGCAAAATTTGATGATGCGTTGACAGCTGACCTAGCCGCTGAACATTG 929
DB 121 CAGAGGAGGAAAACTTAATCTTATGATGATGATGATGATGATGATGATGATGATGATG 180
QY 930 TGAATGACGCTTAAGCTCGGATTAAATTTTCAACGAGAAACAGGGAATTTCTTAAGAAACA 989
DB 181 TGAATGACGCTTAAGCTCGGATTAAATTTTCAACGAGAAACAGGGAATTTCTTAAGAAACA 989
QY 990 CCAAGAGGTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1049
DB 241 CCAAGAGGTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 300
QY 1050 CTCCCTTTAACCAAGGAGGCTGACACGAGAGTGTATCATTCATGAGGAGAAAGCGGT 1109
DB 301 CTCTCTTTTGAACCAAGGAGGCTGACACGAGAGTGTATCATTCATGAGGAGAAAGCGGT 360
QY 1110 TCAAAATCTCAAAAGACTTAACAAACAGGGAATTAATTTGAGGTTACCGAAGAGGAA 1169
DB 361 GAGAGTCTTAAACGACTTAACAAACAGGGAATTAATTTGAGGTTACCGAAGAGGAA 1169
QY 1170 ACCCTCTCCAAAGATAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1229
DB 421 GCTTCTCTTAAAGATAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATG 480
QY 1230 ACAATCTGAGAGACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1289
DB 481 GCAATCTGAGAGACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1289
QY 1290 GCTGATCTTAAAGATAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1349
DB 541 ACTTCTCTTAAAGATAGTATGATGATGATGATGATGATGATGATGATGATGATGATGATG 600
QY 1350 AGCAATGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1409
DB 601 AGCAATGATATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1409
QY 1410 TCCACCTCTGAGAAACAGGAGTGTGATGATGATGATGATGATGATGATGATGATGATGATG 1469
DB 661 TCTGCTCTGAGAAACAGGAGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATG 1469
QY 1470 AGAAGAACTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1529
DB 718 GGAAGAACTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1529
QY 1530 TTTTCCCGGATGTTGAGAGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATG 1589
DB 778 TTTTCCCGGATGTTGAGAGTGTGATGATGATGATGATGATGATGATGATGATGATGATGATG 1589
QY 1590 CCGTGGAGAGACAGTCCGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 837
DB 838 CCGTGGAGAGACAGTCCGCGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 837
QY 1650 TCAAGAGGATTTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 897
DB 898 CCAAGAGGATTTTCAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 897
QY 1698 CTGCGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 957
DB 1698 CTGCGTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 957
```

DB 958 CTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1010

RESULT 6
US-10-374-780A-595

Sequence 595, Application US/10374780A
Publication No. US2004001927A1
GENERAL INFORMATION:

APPLICANT: Sherman, Bradley K
APPLICANT: Riechmann, Jose Luis
APPLICANT: Jiang, Cai-Zhong
APPLICANT: Heard, Jacqueline E
APPLICANT: Hake, Volker
APPLICANT: Creelman, Robert A
APPLICANT: Ratcliffe, Oliver
APPLICANT: Adam, Luc J
APPLICANT: Reuber, T. Lynne
APPLICANT: Keddie, James
APPLICANT: Broun, Pierre E
APPLICANT: Pilgrim, Marsha L
APPLICANT: Dubell III, Arnold T
APPLICANT: Pineda, Omaira
APPLICANT: Yu, Guo-Liang

TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES IN PLANTS

CURRENT APPLICATION NUMBER: US/10/374,780A

PRIOR APPLICATION NUMBER: 2003-02-25

PRIOR FILING DATE: 2001-04-18

PRIOR APPLICATION NUMBER: 60/310,847

PRIOR FILING DATE: 2001-08-09

PRIOR APPLICATION NUMBER: 09/934,455

PRIOR FILING DATE: 2001-08-22

PRIOR APPLICATION NUMBER: 60/336,049

PRIOR FILING DATE: 2001-11-19

PRIOR APPLICATION NUMBER: 60/338,692

PRIOR FILING DATE: 2001-12-11

PRIOR APPLICATION NUMBER: 10/171,468

PRIOR FILING DATE: 2002-06-14

PRIOR APPLICATION NUMBER: 10/225,066

PRIOR FILING DATE: 2002-08-09

PRIOR APPLICATION NUMBER: 10/225,067

PRIOR FILING DATE: 2002-08-09

PRIOR APPLICATION NUMBER: 10/225,068

PRIOR FILING DATE: 2002-08-09

NUMBER OF SEQ ID NOS: 2906

SOFTWARE: PatentIn version 3.2

SEQ ID NO 595

LENGTH: 633

TYPE: DNA

ORGANISM: Oryza sativa

FEATURE:

OTHER INFORMATION: Predicted polypeptide sequence is orthologous to G278

US-10-374-780A-595

Query Match 29.3%; Score 598.6; DB 16; Length 633;
Best Local Similarity 98.4%; Pred. No. 4.3e-111;
Matches 615; Conservative 0; Mismatches 9; Indels 1; Gaps 1;

```
QY 822 ACACAGAGCCCTTACTGTCGATGTAAGCTAGTACAGATGCTGCTCACTGAAGAGCA 881
DB 9 ACACAGAGCCCTTACTGTCGATGTAAGCTAGTACAGATGCTGCTCACTGAAGAGCA 881
QY 882 GACAAATCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 941
DB 69 GACAAATCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 941
QY 942 TACAACGAGCTTTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1001
DB 129 TACAACGAGCTTTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1001
QY 1002 TACTGTTCTTCAATGCTGTCGAGGAGGAGAGAGAGCTTAATCATTTGCTCTTTTAAAC 1061
DB 1002 TACTGTTCTTCAATGCTGTCGAGGAGGAGAGAGAGCTTAATCATTTGCTCTTTTAAAC 1061
```

|||||
Db 189 TACTGTTCTTCACTTGTGCGAGGGAAGAGCCTTAATCATTTGTCCTTTTAAAC 248
|||
Qy 1062 CAAGGGGGCTCCAGCAGCAGATGTTACATTCGTGAGAGAAAAGCGGTCAAAATCTCAAA 1121
|||
Db 249 CAAGGGGGCTCCGGCCAGCAGATGTTACATTCGTGAGAGAAAAGCGGTCAAAATCTCAAA 308
|||
Qy 1122 AAGACTAACAAAACAAGGGGATTTACTTTGGGGTTACCGAAGAGAAAACCTTTCCAAA 1181
|||
Db 309 AAGACTAACAAAACAAGGGGATTTACTTTGGGGTTACCGAAGAGAAAACCTTTCCAAA 368
|||
Qy 1182 AATAGCTATATATATTAATACTGAGAGACTGAAGAAGGAGCCCAACTCCGAAA 1241
|||
Db 369 AATAGCTATATATATTAATACTGAGAGACTGAAGAAGGAGCCCAACTCCGAAA 428
|||
Qy 1242 AGCATCAGTTTCTC-TTGCAATGCGCAGTGAAGTCTACGAGAGAGGTGCTGATCTTG 1300
|||
Db 429 AGCATCAGTTTCTCCTTTGCAATGCGCAGTGAAGTCTACGAGAGAGGTGCTGATCTTG 488
|||
Qy 1301 AAAACCGAGTTCTTTGGCAGAGATTATGTTTCCGATGAGGCAAGAGTACGAAATGATTA 1360
|||
Db 489 AAAACCGAGTTCTTTGGCAGAGATTATGTTTCCGATGAGGCAAGAGTACGAAATGATTA 548
|||
Qy 1361 TTGCTCAATGAGTGAATCTTTGGAATTTAACTGGGTTCTGTGCAAAATCCACTCTCTG 1420
|||
Db 549 TTGCTCAATGAGTGAATCTTTGGAATTTAACTGGGTTCTGTGCAAAATCCACTCTCTT 608
|||
Qy 1421 AAAAGCAACGAGCAACTGTTGATCT 1445
|||
Db 609 GAAAGCAACGAGCAACTGTTGATCT 633
|||

RESULT 7

US-10-328-675A-3

Sequence 3, Application US/10328675A

Publication No. US20030159171A1

GENERAL INFORMATION:

APPLICANT: Salmeron, John

APPLICANT: Weislo, Laura

APPLICANT: Willits, Michael

TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF

FILE REFERENCE: 30857USNPDIIV

CURRENT APPLICATION NUMBER: US/10/328, 675A

CURRENT FILING DATE: 2002-12-23

PRIOR APPLICATION NUMBER: 09/519, 232

PRIOR FILING DATE: 2000-03-06

PRIOR APPLICATION NUMBER: 60/219, 338

PRIOR FILING DATE: 1999-03-09

NUMBER OF SEQ ID NOS: 74

SOFTWARE: Patent In Ver. 2.1

SEQ ID NO 3

LENGTH: 1731

TYPE: DNA

ORGANISM: Lycopersicon esculentum

FEATURE:

NAME/KEY: CDS

LOCATION: (1)..(1728)

OTHER INFORMATION: Full length tomato CDNA sequence

US-10-328-675A-3

Query Match 28.9%; Score 590.2; DB 15; Length 1731;

Best Local Similarity 65.2%; Pred. No. 5.7e-129;

Matches 906; Conservative 0; Mismatches 468; Indels 15; Gaps 2;

Qy 356 AAGAGTGAAGTCCGGGTACGAGGCGCTGCGGTGCTCTCACTACCTTACAGGGCC 415
|||
Db 308 AAGAGTATAGGAGTATTTGATGCGGTGCTCAGTGTGCTCGCTATTTGTATAGGAA 367
|||
Qy 416 GGGTGGGACCTGCCAGGCGGCGCTGCGGTGCTGCGTCAAGAGAGTGGCCACAGTGG 475
|||
Db 368 AAGTTAGGCGCTGATTAAGATGTGTGTTGTGTGCAACAATAGTGTGATGAG 427
|||
Qy 476 GGTGCAACCCCGCGTGGGTTCATGAGCGAAGTCTTTCGCGACCTTCCAGG 535
|||

|||||
Db 428 CTGTAGGCGACCTGTGGCTTTCATGATTCAGGTTTTGTACCAATCTTTACTTTACAGA 487
|||
Qy 536 TCGCGAGCTCAACCACTCTTCCAGCGCGCTCTCTGTGATGCTCTTGAAGTTGAAG 595
|||
Db 488 TCTCTCAATGTGTGACAAAGTTTCAGAGACACTTATTTGATTTCTTGCAAAAGCTGTAG 547
|||
Qy 596 TAGATTAACCTCTTATGATCTTATCTGTGGCCAACTTATGCAACAATCTTGATGAAC 655
|||
Db 548 CAGATGATGATGATGATGATTTATCCGTTGCAAAATTTGGCCGTAAAGCATGTGAAGAT 607
|||
Qy 656 TCGTTGAAGAGTCCCTTGAATGATGATCCCGGTCAAACTTGAATGATTAATCTTTGATA 715
|||
Db 608 TACTTCAAGATGATGATGATTTATGTCMACTTAATGATTAATCAATCAATCAATCAAT 667
|||
Qy 716 AGTCATGCGCTCAAGATGTTATCAAGAGATTTATGATGATGATGATGATGATGATGAT 775
|||
Db 668 AGTCATGCGCTCAAGATGATGATTTATGTCMACTTAATGATTAATCAATCAATCAAT 727
|||
Qy 776 TTTCAACGAAAAACAAGGATTTCTTAAACAACATGTGAGAGATTAACAAGAGCCCTTG 835
|||
Db 728 AAGGCGCTGAAGCAATGATTTCTTGATTAACATGTTAAGAGATTAACAAGAGCCCTTG 787
|||
Qy 836 ACTTGACGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 895
|||
Db 788 ACTTGACGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 847
|||
Qy 896 ATGCGTTTGCACTGACGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 955
|||
Db 848 ATGCAATGCTCTCACTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 907
|||
Qy 956 TGAATCTGACCTTGCAGATGATTAATCATAGAAACCAAGAGTATTAATCTTTTCAACA 1015
|||
Db 908 TAGATCTTCACTTGTGATGATGATTAATCATCAAAATCTTGAGAGACACAGGATTAAT 967
|||
Qy 1016 TTGCTGCGAGGAGAGAGAGCTTAATATGTCCTCTTTTAAACAGGGGCTCGAG 1075
|||
Db 968 TTGCTGCGAGGAGAGAGAGCTTAATATGTCCTCTTTTAAACAGGGGCTCGAG 1027
|||
Qy 1076 CAGCAGATGTTACATTCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1135
|||
Db 1028 CTTCTGATCTGACATCCATGAGCAAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1087
|||
Qy 1136 AAGGAGATTAATCTTTGGGTTACCGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1195
|||
Db 1088 TTGTAGATTTTACCAAGTCTACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1147
|||
Qy 1196 TTGAATACCTGAG 1255
|||
Db 1148 TTGAATACCTGAG 1207
|||
Qy 1256 TTGCAATGCGAGGATGAGATGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1315
|||
Db 1208 TTGCTATGCGAGCGAGATGATGAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1267
|||
Qy 1316 TGGCAAGATTAATGTTTCCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1375
|||
Db 1268 TGGCAAGATTAATGTTTCCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1327
|||
Qy 1376 GAACTTTGGAATTTAACTGGGTTCTGTGCAAAATCCACTCTGTAAGAGAGAGAGAG 1435
|||
Db 1328 GCAGCTCTGAATTAATCCCTGCTGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1387
|||
Qy 1436 CTGTGATCTAATGAAAGTCCCTTTCATTAATGAAAGAGAGAGAGAGAGAGAGAGAG 1495
|||
Db 1388 CAGTGAATTTGAACAAGAGCTCTTTTCAGATTAAGAGAGAGAGAGAGAGAGAGAGAG 1447
|||
Qy 1496 CACTCTCCAAAACAGTGAAGTCCGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1555
|||
Db 1448 CTCTCTTAAG 1507
|||
Qy 1556 ACAAGATCATGATGATGA-----AATGATCCGTTTCCCTCGAAGAGAGAGAGAGAG 1609
|||

Db	701	AAGCCTTGCTCATGACATTTGTAACAAATTA	CTGATTCACGAGCGGAACCTTGCTTAC	760	
QY	776	TTTCAACGAGAAACAAGGGAATTTCCCTAACAA	CAATGTGAGAGGATACACAGAGCCCTTG	835	
Db	761	AAGGACCTGAAAGCAACGGCTTTTCTGTATTA	ACAATGTTAAGAGATACATAGGCGCATTGG	820	
QY	836	ACTCTGACGATGTGAGAGCTAGTCAGAGTGTCT	CACTGAGACAGACAAATCTTGATG	895	
Db	821	ATTCTATATGATGTGAATTAATTAACA	MAATGTTGTACAGAGGGGCATACACCTTGATG	880	
QY	896	ATGCGTTTGCACCTGCACTACGCCCGCGAA	CAATGTGTGCTCCAAATTAACAACGACCTT	955	
Db	881	ATGCAATATGCTCTCCATTATGCTGATGCGAT	GTATTCGATGCMAAGACTCAAGAGAACTTC	940	
QY	956	TGGATGTGCACTTGCGACATGTTATCAT	TAGAAACCCGAAAGGTTATACCTGTTCTTCA	1015	
Db	941	TGATCTTGTCACCTTGCTGATATTAATAT	CATAAATTCAGAGGGATCACGGTGCTGATG	1000	
QY	1016	TTGCTGCGAGGCGAAGAGAGCTTAAATCA	TGTCTCCCTTTTAACAAAGGGGCTCGAC	1075	
Db	1001	TTGCAAGCCATGAGGAAAGAGCTTAAATGT	ATGTATGTCTTTCCTTTTAAACAAAGAGCTGAC	1060	
QY	1076	CAGCAGATGTACCTTGATGTGAGAGAA	AAACCGGTTCAATCTCAAAAAGACTAACAAAC	1135	
Db	1061	CTTCTGATCTGACATCCGATGAGAAAGAA	GCATTCAAATCGCCAAAGGCTCACTAGGC	1120	
QY	1136	AAGGGATTACTTTGGGGTTACCGCAAGAA	AAAACTTCTCCAAAAAAGTATGGTTATGTA	1195	
Db	1121	TTTGGAATTTCACTAATGCTCCGGAGGA	AGAAATCTGCTTCGAAATGATGGTTATGCA	1180	
QY	1196	TTGAAATACCTGAGAGCAAGCTGAA	AAAGAGACCAACAATCTGAGAGACATCAATTC	1255	
Db	1181	TTGAGATCTTGAGAGCAAGAGAA	AAAGAACCCCTGCTGAGAGAGCTTCTGTAATTC	1240	
QY	1256	TTGCATGCGAGGTGAGCTTACAGAGAA	AGTTGCTGTATCTTGAAAACCGATGCTT	1315	
Db	1241	TTCTATTTGCAAGCGCATATTTGCGTAT	GATGATTAACCTTGAAAATAGAGTTGGCC	1300	
QY	1316	TGCGAAGGATATATGTTTCCGATGTGAG	CGCAAGCATGATGATATTTGCTCAAGTGGATG	1375	
Db	1301	TGCTTAACTCCTTTTCCAAATGGA	AGCTTAAAGTTGCAATGACATTCCTCAAGTTGATG	1360	
QY	1376	GAACTTTGGAATTTAACCTGGGTTCT	GTGATCAATCAACCTCCTGAAAGACAACGACAA	1435	
Db	1361	GCACTTCTGAAGTCCCACTGCTAGCAT	TCGGCAAAAAGATGCTAATGCAACAGAGACAA	1420	
QY	1436	CTGTGATCTAATAGAAAGTCTTTCAT	TATATGAAAGAACATTAAGCTGGATGACAG	1495	
Db	1421	CAGTGAATTTGAAGAGGCTCCTTTCA	AGATTAAGAGAGACATTTGAATCGGCTTAGAG	1480	
QY	1496	CACCTCCAAACAGTGAAGCTTGAGAA	ACGCTTTTCCCGAGATGTTCGAACGAGCTCG	1555	
Db	1481	CACCTCTGAGAACTGTAGAACTTGAAAA	CGCTTCTTCCAGGTTGTTCAAGAAATTTCTAA	1540	
QY	1556	ACAAATCATGATGATGATGA-----	AACGATCCCGGTTTCCCTCGGAAGACACGTC	1609	
Db	1541	ATAAGATCATGATGTGCTGATGACTTGT	CTGATATGCTTTAATGCGGGAATGATTCGCGAG	1600	
QY	1610	CGGA-----	GAAGAGAAAGGTTTCAATGACCTGCA	AGATGTTCTTCAGAAAGCAAT	1660
Db	1601	AAGAGCGTCAACTGAAGAAAGAAAGT	ACATGAGAACTTCAGAAATTTCTACATTAAGCAAT	1660	
QY	1661	TCACGAGGATTAAGAAAGATATGTAT	GAAGCTAACCAACATCTCCTCATCTTGTTC	1715	

TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
NUMBER OF SEQUENCES: 28
CORRESPONDENCE ADDRESS:
ADDRESSEE: Clark & Elding LLP
STREET: 176 Federal Street
CITY: Boston
STATE: MA
COUNTRY: USA
ZIP: 02110
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/908,884
FILING DATE:
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/023,851
FILING DATE: August 9, 1996
APPLICATION NUMBER: 60/035,166
FILING DATE: January 10, 1997
APPLICATION NUMBER: 60/046,769
FILING DATE: May 16, 1997
ATTORNEY/AGENT INFORMATION:
NAME: Elding, Karen L.
REGISTRATION NUMBER: 35,238
REFERENCE/DOCKET NUMBER: 00786/339004
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-428-0200
TELEFAX: 617-428-7045
INFORMATION FOR SEQ. ID NO: 13:
SEQUENCE CHARACTERISTICS:
LENGTH: 2172 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: cDNA
US-08-908-884-13

Query Match 27.6%; Score 563.4; DB 8; Length 2172;
Best Local Similarity 64.3%; Pred. No. 1.3e-122;
Matches 884; Conservative 0; Mismatches 476; Indels 15; Gaps 2;

356 AGGAGTGAAGTGGGCTGACGAGGCGCTGCGCTGCTCCACTACCTCTACAGCGCC 415
580 AAGAGATAGAGTGAAGCTATGATGCTGTAATGAGTATGGCTTATTTGTATAGTGA 639
416 GCGTCGCGACCTGCGCAAGGCGGCGCTGCGCTGCGTCAAGAGAGTGGCGCCACGTG 475
640 AAGTGAAGCTTCACTTAAGATGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT 699
476 GGTGCACACCCCGCTGCGCTGCTGATGCGGAGTCCCTCTTCCGCGCTCCACCTTCAG 535
700 CTTGTAGGCGAGCTGTGGCATTCCTGTTGAGGTTTGTACACATCATTTACCTTTCAG 759
536 TGGCGAGCTCACCACTCTTCCAGCGGCTCTCTTGTATGCTTTGATTAAGTTGAAG 595
760 TCTCTGAATTGGTGAAGATTTCAGACACCTACTGATATCTTTCAGCAAAATCGCAG 819
596 TAGATACTCTGATGATCTTATCTGTGCGCACTTATGCAACAACTGTCATGATAAG 655
820 CAGACGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 879
656 TGGTGAAGATGCTTGTATGATGATGATGATGATGATGATGATGATGATGATGATGAT 715
880 TGGTTCAAGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 939
716 AGTCAATTTGCTCCAGATGTTTATCAAGAGATTTTATGATGAGCCCTTAAGCTTGATTA 775
940 AAGCTTGGCTCATGACATTTGTAACAAATTAATTAATTAATTAATTAATTAATTAATTA 999

776 TTTCACCAAGAAACAAAGGATTTCTTACAAACATGTGAGAGATACACAGCCCTTG 835
1000 AAGGCGCTGAAGCAACGGTTTCTCGATTAACATGTTAAGAGATACATAGGCGCATTTG 1059
836 ACTCTGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 895
1060 ATCTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1119
896 ATGCGTTTGCATGCACTGACGCGCTGCAACATTTGTGCTCAAAATTAACACCGACCTTT 955
1120 ATGCAATGCTCTCCATTTATGCTGATGCGTATTTGCGATCAAGATCAAGAGAACTTC 1179
956 TGAATCTGCACTTGCATGATGTTAATCATAGAAACCAAGAGTTATCTGTTCTTCA 1015
1180 TAGATCTTGCATGCTGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1239
1016 TTGCTGCGAGGGAAGAGAGCCCTAAATCATGTCTCCCTTTTAAACAGGGGCGTCGAC 1075
1240 TTGCAAGCCATGAGAAAGAGCCCTAAATGTGTGTCTCTTTTAAACCAAGAGCTAGAC 1299
1076 CAGCAGATGTTACATTCGATGAGGAAAGAGCGGTTCAAAATCTCAAAAGACTAACAAAC 1135
1300 CTTCTGATCTGACATCCGATGAGAAAGAGCACTTCAATCCGCAAGAGCTCATAGGC 1359
1136 AAGGGAATTAATTTGGGTTTACCGAAGAAAGAAACCTTCTCCAAAGATAGTTATGTA 1195
1360 TTGTGATTTCAATGATGCTCCGAGAGAGAAATCTGCTTCAATGATGCTGATGATGCA 1419
1196 TTGAATTAATGAGCAAGCTGAAGAAAGAGGAGCCACACTCGGAGAGATCATGTTCTC 1255
1420 TTGAGATTTGAGCAAGCAAGCAAGAAAGAGGAGCCCTGCTAGAGAGAGCTTCTGATCTC 1479
1256 TTGCAATGCGAGGTGAGAGTCAACGAGAGAGGTTGCTGATCTTGAACCCAGTTGCTT 1315
1480 TTGCTATGCGAGGCGATGATTTGCGATGAGAGTGTATTAACCTTGAATTAAGATTGGCC 1539
1316 TGGCAAGATTAATGTTCCGATGAGAGCAAGAGTACCAATGATATTTGCTCAAGTGAATG 1375
1540 TGGCTAAATCTCTTTTCCATGGAAGTAAAGTTCAATGACATTTGCTCAAGTTGATG 1599
1376 GAACTTTGAATTTAACTGCGGTTCTGTGTGCAATTCACCTCTGAAAGACACGACAA 1435
1600 GCACTTCTAGATTCACGCTGCGTACGATGCGCAAAAGATGCGTAAATGACAGAGACAA 1659
1436 CTGTGATCTAAATGAAAGTCCCTTTCATATGAAAGAAACCTTAGCTGAGTACAG 1495
1660 CAGTGAATTTGAACGAGGCTCTTTTCAAGATTAAGAGAGACCTTGAATCGCTTAGAG 1719
1496 CACTTCCAAAACAGTGAAGCTCGGAAACGCTTTTCCGCGATTTGAAAGTGTCTCG 1555
1720 CACTCTCTAAGACTGTAGAACTTGGAAACGCTTCTTCCAGGTTTTCAGAAATCTTAA 1779
1556 ACAAGATCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1609
1780 ATAGATCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1839
1610 CGGA-----GAAGAGAGAGGTTTCATGACCTGAGAGATGTTCTTCAAGAGGACAT 1660
1840 AAGAGCGTCACTGAAGAGAGCAAGAGTACATGAACTTCAAGAAATTTGACTTAAGCAT 1899
1661 TCCACGAGAGCAAGAGAGAGATGACAGGTGCGGCTCTGCTGCTGCTGCTGCTGCTGCT 1715
1900 TCACGAGGATTAAGAGAGATTAATGATTAAGACTTAACAAATCTCTCATCTTGTTC 1954

RESULT 10
US-09-323-13
Sequence 13, Application US/09908323
Patent No. US20020073447A1
GENERAL INFORMATION:
Applicant: Dong et al.
TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
NUMBER OF SEQUENCES: 28


```
; FILE REFERENCE: 30857USNPDI.V1
; CURRENT APPLICATION NUMBER: US/10/328, 675A
; CURRENT FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: 09/519, 232
; PRIOR FILING DATE: 2000-03-06
; PRIOR APPLICATION NUMBER: 60/219, 338
; PRIOR FILING DATE: 1999-03-09
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: Patentin Ver. 2.1
; SEQ ID NO 63
; LENGTH: 2296
; TYPE: DNA
; ORGANISM: Beta vulgaris
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (113)..(1927)
; OTHER INFORMATION: full-length Sugarbeet cDNA sequence
US-10-328-675A-63
```

```
Query Match      27.5%; Score 562; DB 15; Length 2296;
Best Local Similarity 61.2%; Pred. No. 2,8e-122;
Matches 1014; Conservative 0; Mismatches 605; Indels 39; Gaps 5;
```

```
QY      86 CCGACGTGAGGCGCTCCGCGCGCTCTCCGACAACTCCGCGCGCGCTCCGCTCCGCGCG 145
      |||||
DB      261 CCGACGCCGCCCGCTCTCTCCGCGCTCTCGAATACTCGACTTTTCCAACTCCGCGCG 320
QY      146 AGGACTTCGCGTTCTCGCGCGACGCGCGGATGCGCGCTCCGCGCGCGCGCGCGG 205
      |||||
DB      321 TTTCTCTCCGACTCCGACTCTTTTCCGCGCGCTTAAATCGTCTTCCGCGATTCCG 380
QY      206 GCGACCTGCGGCTGACACCGCTCGTCTCTCCGCGCGAGCCCTTCTCGCGCGCGTCT 265
      |||||
DB      381 GGAAGATGCCCGTTTCACTCGGTGTTCTCTCGTCTGGAAGCTGTTCTTTCCGCTCCGCT 440
QY      266 TCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGAGATGCGAGCGAGCGTGG 325
      |||||
DB      441 TTGCTT-----CGAAACGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGTGTG 490
QY      326 AGCTCCGCGGAGCTCTCGCGCGCGCGCGCGAGAGAGAGAGAGAGAGAGAGAGAGAGTGC 385
      |||||
DB      491 AGCTTTAG-----CTTAAAGATTATAGCTGTGATTTTGAAGTTTGAATTTGCGTTG 545
QY      386 GCGTGTGCTCGACTACTCTACAGCGCGCGCGCTCGCGACCTGCGCAAGCGCGCGTGC 445
      |||||
DB      546 TTGCGGTTTAAAGTTATTTGTATAGTGGCAAGTTGAATTTGCCTTAAGGAATTTGTG 605
QY      446 TCTGCGTGCAGAGAGCTGCGCGCGCGCGCGGTCACACCGCGCGTCCGCTTCATGCGCG 505
      |||||
DB      606 TTTGTGTGATGAGATGCTCTCATGAAGCTTGTGCTGCTGTGTGAATTTTGTGTTG 665
QY      506 AGGTCTCTTCGCGCGCGCTCACTTCCAGGTGCGCGAGCTCACCAACTCTTCCAGCGCG 565
      |||||
DB      666 AGGTCTCTTAATTTGTCTCAAAATTCGAATTTGTCAATTTGTGCTTTATCAAGAGCG 725
QY      566 GTCTCTTGATGTCTTGAATTAAGATTGAAGTAGATACTTATGATCTTATCTGTTG 625
      |||||
DB      726 ACCTACTGATATTTCTTGACAGATTGACACAGATGACGTTCTTAGTAGTGTATCTGTGG 785
QY      626 CCAACTTATGCAACAAATCTTGCAATGAACTGCTTTAAGAAATGCTTTGATATGTAAGTCC 685
      |||||
DB      786 CTGAGATGTGTGGAATGCGTGTGACGAGATGCTGCGCAAGGTGTATGACAAAGATTGTGA 845
QY      686 GGTCAAACTTGACATGATTAATCTTGAGAAAGTCAATTTGCTCCAGATGTTATCAACAGA 745
      |||||
DB      846 GGTCCGATATTTGCGTACCACTTGAATTAATCTTTCGCGCGAGATGTTGTGAACAGA 905
QY      746 TTAATGATGACACCGCTTAAGCTCGATTAATTTCAACAGAAACAAAGAGATTTCTTAACA 805
      |||||
DB      906 TAAATGACACGCGAAAGAACTTGGGTTTAACTAACTGGGCGCTTTGAAGTTTCTCTGA 965
QY      806 AACATGTAGAGAGATACACAGAGCCCTTGAATCTGACATGTATAGCTATGAGATGTC 865
      |||||
```

```
DB      966 AGCATGTGAAGAAATACACAGAGCTTTGGAAATCCGATGATGTAGATTAGTCAGAAATGC 1025
QY      866 TCGTCACTGAAAGACAGACAAATCTTGATGATGCGTTTGCACCTGACCTACGCGCTGCAAC 925
      |||||
DB      1026 TTTTAAAGAGGCCATTAACAATCTAGATGATGATATGCTCTTCACTATGCTGTGGCAC 1085
QY      926 ATTGTGACTCCAAATTTACACACCGAGCTTTTGGATCTCGCACTTGCAGATGTTATCAT 985
      |||||
DB      1086 ATTTGATGTCCAAGACCAACACGAGAGCTTTGAGCTTGGGCTTGGAGATGTTAATCTTA 1145
QY      986 GAAACCCAAAGAGTTATTAATCTTCTTCAATTTGCTGCGAGGCGGAGAGAGCCCTTAAATCA 1045
      |||||
DB      1146 GAAATCTTAAGGGGTCACTGTGCTACATGTGCAACCTGAGAAAGAGCTTAAATTA 1205
QY      1046 TTGTCTCCCTTTTAAACCAAGGGGCTCGACACAGATGTTTACATTTGATGAGAGAAAG 1105
      |||||
DB      1206 TTGTATCTCTTTTAAACCAAGGGAGCCCATCGCTGTATTAATCATCAGATGATTAABAAA 1265
QY      1106 CGGTTCAATCTCAAAAAGACTTAACAAAACAAGGGATTACTTTGGGCTTACCGAAAG 1165
      |||||
DB      1266 CACTGAGATGACAAAGAGACTTAACAAAAGCTGTGGAATTTAAACTACAGAAACAAG 1325
QY      1166 GAAACCTTCCAAAAGATAGTTATGTAATGAAATTAATGAGCAAGCTGAAGAAGAG 1225
      |||||
DB      1326 GAAAGATGACCAAGAGATCGGTTGTGCAATGAAATCTGAGCAAGCTGAAGAAGAG 1385
QY      1226 ACCCAACTCGGAGAGAGCATGTTCTTTGCAATGCGAGTGAAGATTAACAGAA 1285
      |||||
DB      1386 AACCATGTGTAAGAGAAAGTTCTGTTCTCTTGCAAAAGCGAGAGATGATCTGCTATGA 1445
QY      1286 GGTGCTGTATCTTGAACCAAGTTGCTTTGGCAAGATTAATGTTTCCGATGAGAGCAA 1345
      |||||
DB      1446 AGCTATTATATCTTGAATAAGTTGCACTTGTCTGCTGCTTCTTCCAAATGGAAGCA 1505
QY      1346 GAGTAGCAATGATATTTGCTCAAGTGAAGTGAACCTTGAATTTAACCTGGGTTCTGGTG 1405
      |||||
DB      1506 AAGTGTATGATATTTGCTCAAGTGAAGCACTTCAATTTCACTATGT----- 1556
QY      1406 CAAATTCACCTCTGAAAGACAAACGACCAACTGTGATCTTAATGAATGCTCTTTCATTA 1465
      |||||
DB      1557 CAAGAAATTAAGTATGACGAGAGAAATGCGGTGACTTGAATGAGGCTCCCTTATAT 1616
QY      1466 TGAAGAGAAACACTTAAGTCTGAGTGAACAGACTTCCAAAACAGTGAAGCTCGGAAAC 1525
      |||||
DB      1617 TGAAGAGAGAGACTTTGCAAGAGATGAAGCACTGTAAACCTGTTGAGCTTGCACAGC 1676
QY      1526 GCTTTTCCCGGAGATTTGAACGCTGCTGACAAATCATG-----GATATGAACATG 1579
      |||||
DB      1677 GTTTCCTTCCAGCGCTGCTCGATGTTCTTAATGAATTAAGACCGCGAAGATCTATCAC 1736
QY      1580 ATCCGCTTCCCTCGGAAGAGACAGTCCGCGA-----GAGAGGAAGAGGTTTC 1630
      |||||
DB      1737 AGCTTGCAATTTTGAAGAAAGATCTCCAGAGAGACGCAAGAGAGAGAAACGATATCC 1796
QY      1631 ATGACCTCGAGAGATTTCTTCAAGAAAGCAATTCACAGAGACAAAGAGAAATGACAGGT 1690
      |||||
DB      1797 TTGAAGTCAACACGTTTAACTAAAGGCTTTTACAGAGACAAAGAAAGTTTGAACGTT 1856
QY      1691 CGGGGCTCTGCTGCTGCTGCTCATGACATCGATCGGG 1728
      |||||
DB      1857 CTACATTAATCAATCATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1894
```

```
RESULT 12
US-10-437-963-51264
; Sequence 51264, Application US/10437963
; Publication No. US20040123343A1
; GENERAL INFORMATION:
; APPLICANT: La Rosa, Thomas J.
; APPLICANT: Kovalic, David K.
; APPLICANT: Zhou, Yihua
; APPLICANT: Cao, Yongwei
; APPLICANT: Wu, Wei
```


APPLICANT: Boukharov, Andrey A.
APPLICANT: Barbazuk, Brad
APPLICANT: Li, Ping
TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
FILE REFERENCE: 38-21(53221)B
CURRENT APPLICATION NUMBER: US/10/437,963
NUMBER OF SEQ ID NOS: 204966
SEQ ID NO 51264
LENGTH: 461
TYPE: DNA
ORGANISM: Oryza sativa
FEATURE:
OTHER INFORMATION: Clone ID: PAT_MRT4530_53673C.1
US-10-437-963-51264

Query Match 21.9%; Score 447.2; DB 17; Length 461;
Best Local Similarity 98.3%; Pred.No.2.1e-95;
Matches 452; Conservative 0; Mismatches 8; Indels 0; Gaps 0;
QY 986 GAAACCCAGAGGTTATCTGTTCTTCAATGCTGCGAGCGAAGAGAGCTTAATCA 1045
DB 2 GTATCCCAAGAGGTTATCTGTTCTTCAATGCTGCGAGCGAAGAGAGCTTAATCA 61
QY 1046 TTGTCTCCCTTTAAACCAAGGCGCTCGACGACGATGTTACATTCGATGGAGAAAG 1105
DB 62 TTGTCTCCCTTTAAACCAAGGCGCTCGACGACGATGTTACATTCGATGGAGAAAG 121
QY 1106 CGGTTCAATCTCAAAAAGACTTAACAAACCAAGGAGTTACTGGGGTTACCGAAGAG 1165
DB 122 CGGTTCAATCTCAAAAAGACTTAACAAACCAAGGAGTTACTGGGGTTACCGAAGAG 181
QY 1166 GAAACCTTCTCAAAAAGAGTTATGTAATCTGAGCAACTGAAGAGAGG 1225
DB 182 GAAACCTTCTCAAAAAGAGTTATGTAATCTGAGCAACTGAAGAGAGG 241
QY 1226 ACCCACTGCGAGAGCATCAGTTCTCTTGCATGCGAGGAGAGTCTGAGAGAA 1285
DB 242 ACCCACTGCGAGAGCATCAGTTCTCTTGCATGCGAGGAGAGTCTGAGAGAA 301
QY 1286 GGTGCTGTATCTTGAAGAACGAGTCTTGGCAAGATTAATGTTCCGATGAGGCA 1345
DB 302 GGTGCTGTATCTTGAAGAACGAGTCTTGGCAAGATTAATGTTCCGATGAGGCA 361
QY 1346 GAGTAGCAATGATATGCTCAAGTGAAGAACTTGAATTAACCTGGGTTCTGGTG 1405
DB 362 GAGTAGCAATGATATGCTCAAGTGAAGAACTTGAATTAACCTGGGTTCTGGTG 421
QY 1406 CAAATCCACCTCCGAAAGCAAGCAAGCACTGTTGATCT 1445
DB 422 CAAATCCACCTCTTGAAGCAAGCAAGCACTGTTGATCT 461

RESULT 13
US-10-767-701-21927
Sequence 21927, Application US/10767701
Publication No. US20040172684A1
GENERAL INFORMATION:
APPLICANT: Kovalic, David K.
APPLICANT: Zhou, Yihua
APPLICANT: Cao, Yongwei
TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
FILE REFERENCE: 38-21(53535)B
CURRENT APPLICATION NUMBER: US/10/767,701
CURRENT FILING DATE: 2004-01-29
NUMBER OF SEQ ID NOS: 63128
SEQ ID NO 21927
LENGTH: 614
TYPE: DNA
ORGANISM: Sorghum bicolor
FEATURE:

OTHER INFORMATION: Clone ID: 13392562
US-10-767-701-21927

Query Match 21.7%; Score 442.2; DB 17; Length 614;
Best Local Similarity 83.0%; Pred.No.3.5e-94;
Matches 504; Conservative 0; Mismatches 103; Indels 0; Gaps 0;
QY 712 GAGAGTCATTCCTCCAGATGTTATCAAGCAATTAATGATGACAGCTGAGCTGGGA 771
DB 8 GAGAGTCATTCCTCCAGATGTTATCAAGCAATTAATGATGATGATGATGATGATG 67
QY 772 TTAATTCACAGAAAACAGAGGATTTCTTAACAATGAGAGATACAGAGCC 831
DB 68 TTAGTTTACAGAGAGCAAGAGGCTTCCCTTAACATCAATGTAAGAGATGACAGAGCG 127
QY 832 CTGATCTGACAGATGATGAGCTAGTCAAGATGCTGCTCACTGAGAGCAAGCAATCTT 891
DB 128 CTGATCTGATGATGATGATGAGCTAGTCCGATGCTACTCAAGAGAGAGAGAGAGCT 187
QY 892 GATGATGCTGTTGCACTGCACTAGCCGCTCGAATGTTGATGATGATGATGATGATG 951
DB 188 GATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 247
QY 952 CTTTGGATCTGCACTTGCAGATGTTAATCATAGAAACCAAGAGGTTATGTTCTT 1011
DB 248 CTTTGGATCTGCACTTGCAGATGTTAATCATAGAAACCAAGAGGTTATGTTCTT 307
QY 1012 CACATTCGTGAGAGCGAAGAGAGCTTAATCATTTGCTCTCTTTTAAACAGAGGCT 1071
DB 308 CACATTCGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 367
QY 1072 CGACCAAGATGTTATCATTCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1131
DB 368 CGACCAAGATGTTATCATTCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 427
QY 1132 AAACAGAGAGATTAATCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1191
DB 428 AATGATGAGATTAATCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 487
QY 1192 TGTATGAATCTGAG 1251
DB 488 TGTATGAATCTGAG 547
QY 1252 TCTCTGCAATGAG 1311
DB 548 TCTCTGCAATGAG 607
QY 1312 GCTTTGG 1318
DB 608 GCTTTAG 614

RESULT 14
US-08-908-884-2
Sequence 2, Application US/0890884
Publication No. US20020138872A1
GENERAL INFORMATION:
APPLICANT: Dong et al.
TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
NUMBER OF SEQUENCES: 28
CORRESPONDENCE ADDRESS:
ADDRESSEE: Clark & Elbing LLP
STREET: 176 Federal Street
CITY: Boston
STATE: MA
COUNTRY: USA
ZIP: 02110
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA:

```

APPLICATION NUMBER: US/08/908,884
FILING DATE:
CLASSIFICATION: 800
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/023,851
FILING DATE: August 9, 1996
APPLICATION NUMBER: 60/035,166
FILING DATE: January 10, 1997
APPLICATION NUMBER: 60/046,769
FILING DATE: May 16, 1997
ATTORNEY/AGENT INFORMATION:
NAME: Elbing, Karen L
REGISTRATION NUMBER: 35,238
REFERENCE/DOCKET NUMBER: 00786/339004
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-428-0200
TELEFAX: 617-428-7045
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 2104 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: cDNA
FEATURE:
NAME/KEY: Coding Sequence
LOCATION: 93...1871
OTHER INFORMATION:
US-08-908-884-2

```

```

Query Match      20.7%; Score 422.2; DB 8; Length 2104;
Best Local Similarity 58.4%; Pred. No. 2,7e-89;
Matches 824; Conservative 0; Mismatches 556; Indels 30; Gaps 4;

```

```

QY 352 GCGGAGAGAGTGAAGTCCGGGATACGAGCGCGCTCGCGCTGCTGCACATACCTTCACAC 411
DB 444 GCCAAGGATTAAGAAATCGGTTTCGATTCGTTGATACGTTTGGCTTAATGTTACAC 503
QY 412 GCGCGGCTGCGGCACTGCGCAAGCGGCGTGCCTCTGCGTGCACAGAGACTGCGCCAC 471
DB 504 AGCAGATGAGACCGCGCTTAAGAGATTTCTGAATGCGCAGACAGAAATGCTGCCAC 563
QY 472 GTGCGGTGCGACCGCGCGCTGCGCTTCATGCGCAGGCTCTTCGCGCCCTCCACCTTC 531
DB 564 GTGGCTGCGCGCGCGCGGATTTCAATGTTGAGAGTTCTGATTTGCTTCATCTTC 623
QY 532 CAGGTGCGGAGCTCAACAACCTCTTCAGCGCGCTCTCTTGATGCTCTTGAATGTT 591
DB 624 AAGATCCCTGAATTAATCTCTATCTATCAAGGCACTTAATGAGCGTTGTAGCAAAATT 683
QY 592 GAAGTAGATAAATCTTATGATCTTATCTGTTGCCAATTATGCAAAATCTTGCAATG 651
DB 684 GTTATAGAGACACATTTGTTACTCAAGCTTGCTTAATATATGTTGTAAGCTGTATG 743
QY 652 AAATGCTTGAAGATGCTTGATATGATGATCCGCTCAAACTTGACATGATTTACTCTT 711
DB 744 AAGCTATGATAGATGATTAAGAGATTAATGCAAGCTTAATATGATATGTTACTCTT 803
QY 712 GAGAAATCTATGCTTCAAGATGTTATCAAGCAAGATTAATGACAGCTTAAGCTTCGA 771
DB 804 GAAAGATCAATGCGGAGAGAGCTTTTAAAGAGATTAATGATAGAGTAAAGAGCTTGT 863
QY 772 TTAATTTCCAGAAACAGAGGATTTCTTAACAAACATGTGAGAGATACACAGAGCC 831
DB 864 TTGAGAGTACTTAATTAAG-----AAACATGTCGATGATGATACATAAGGGA 911
QY 832 CTGACTCTGACGATGATAGAGTACTGAGATGCTGCTCACTGAAGAGACAGCAAACTTT 891
DB 912 CTGACTCTGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 971
QY 892 GATGATGCTTGTGACATGACATGACGCGCTGCAACATTTGATGATCTCCAAATTAACA 951
DB 972 GATGATGCTGCTGCTCTTCAATTTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT 1031

```

```

QY 952 CTTTGTGATCTGCACTTGACAGATGTTATCTATGAAACCCAAAGGTTATCTGTTCTT 1011
DB 1032 CTTTAAACCTGATCTTGCCGATGTCACATAGAAATCCAGAGGATATACGTTGCTT 1091
QY 1012 CACATTCGCGAGCGGAGAGAGAGCTTAAATCAATGCTCTCTTTTAAACCAAGGGGCT 1071
DB 1092 CATGTTGCTGCGATCGGAGAGAGCAATGATGATCTATCTTATGAGAAAGAGTGA 1151
QY 1072 CGACAGAGATGTTATCAATTCATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1131
DB 1152 AGTGATCAAGAGCACTTTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1211
QY 1132 AAACAGAGGATTAATCTTGAGGTTACCGAGAGAGAGAGAGAGAGAGAGAGAGAG 1191
DB 1212 ATGCGGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 1271
QY 1192 TGTATGAAATCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1251
DB 1272 TGTGTAAGAAATCTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1331
QY 1252 TCTCTGCAATGCGAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1311
DB 1332 TCTTTTGCAGTGGCGCGAGATGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1391
QY 1312 GCTTGGCAAGGATTAATGTTTCGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1371
DB 1392 GCACCTGCTCAACGCTTTTTCACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1451
QY 1372 GATGAACTTTGAAATTTAAGCT--GCTTGTGCTCAATTCACCTCTGAAAGACA 1428
DB 1452 AAGGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1511
QY 1429 CGGACATGTTGATCTAAATGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1488
DB 1512 AGAATCAACCGGAGTGAAGATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1571
QY 1489 ATGACAGCACTCTCCAAACAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1548
DB 1572 CTAAAGAGGCTTTTAAACCGTGAACCTGGAACGATCTTCCCGCGCTGTTGGGCA 1631
QY 1549 GTGCTGACAGATCATG-----GATGATGAATCTGATCCGTTTCCCTCGAAGAGC 1602
DB 1632 GTGCTGACAGATTAATGAATGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1691
QY 1603 AGTCCGCG-----GAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1653
DB 1692 ACTGCTGAGAAACGACTACAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1751
QY 1654 AAGCATTCACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1713
DB 1752 AAGGCTTTAGTGAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1811
QY 1714 TCGACATGATGAGGAGGCAATTCAGACCAAG 1743
DB 1812 TCCACATGAAATCAACCGGTGAGAAAGAG 1841

```

```

RESULT 15
US-09-908-323-2
Sequence 2, Application US/09908323
Patent No. US20020073447A1
GENERAL INFORMATION:
APPLICANT: Dong et al.
TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
NUMBER OF SEQUENCES: 28
CORRESPONDENCE ADDRESS:
ADDRESSER: Clark & Elbing LLP
STREET: 176 Federal Street
CITY: Boston
STATE: MA
COUNTRY: USA
ZIP: 02110

```


Db 347 TSQKALQIAKLTLDVFTKSTBEKGAPKORICIELLEBAERDULLGEASISLAMA 406
Qy 423 GESLRRLLYENRVALARIMFMEARVMDIAQVDTGLENLGSGANPPERORTVLD 482
Db 407 GIDLRLKLYENRVALCLFPNKAAMDAQVDTSELPLASMKRLIADQRTVLD 466
Qy 483 NSPFLMEKHEHARMTALSKTYELGKRFPPRCNSVLDKIM--DDETDPVSLGDTSAE-- 538
Db 467 NAFPRKHEHNRRLRALSRVTELGKRFPPRCSEVLKIMADLSEIAIANDVTEBERQ 526
Qy 539 -KRKPFHLDQVLOKAFHEDEKENDRSGLSSTSSSTIGAIRP 580
Db 527 LKORVMELOITLSKAFTEDEKEPRAKTWMSSCSSTSGVDPK 569

RESULT 2
US-09-519-232-2
; Sequence 2, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willis, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
; LENGTH: 588
; TYPE: PRT
; ORGANISM: Nicotiana tabacum
US-09-519-232-2

Query Match 56.7%; Score 1672.5; DB 4; Length 588;
Best Local Similarity 56.8%; Pred. No. 4.2e-162;
Matches 336; Conservative 102; Mismatches 119; Indels 35; Gaps 8;

Qy 11 AFSDSASVE-----GDADADADVEALRLSDNLAAR--RSPEDAFIAD 56
Db 7 AFSDSNDISGSSSICIGGWTFFPSPETPAETLSLKRSETLESIFASLPEEPDYAD 66
Qy 57 ARIAVPGGGGGGLRVHRCVLSRSPFLRGVFAARAAAAGGGGDEGSERLERLIGG 116
Db 67 AKLVV---SPPCKEIPVHRCILSARSPPFKNLFC-----GKKKXSSKVELKEVN-- 113
Qy 117 GGEVEVGYEARLVLDYLSRGVGDLPRAACLCVDEDCAHGCHPAVAFMAQVFAAST 176
Db 114 --KEHEVSYDAVMSVLAIVYSGKVRSPKDVCCVNDNDSHVACRPAAFLVEVLYTSFT 171
Qy 177 FOVAELTNLFORRLDVLKVENVDNLILSVANTCNKSCMKLERCLMDVVRNSLMT 236
Db 172 FOISELVDFKORHLIDIKTAADVMVMTLVANICGACERLISCEIIVKSNVILIT 221
Qy 237 LEKSLPDDVIKQIIDARLSLGLISPENKGFPMKHVRIRHRLDSDVDELYVRLITGQIN 296
Db 232 LKALPFDIVKQITDSRAELGLQGBESNGFPDKVKIRHRLDSDVDELYVRLITGQIN 291
Qy 297 LDDAFALHVAVEHCSTTTTLLDLALADVNRNPRGYTVLHIAARREPKTIIVSLITG 356
Db 292 LDDAFALHVAVYCAKTTAELDLALADINHQNRSRGTVLHVAAMKEKIVASLITG 351
Qy 357 ARPADVTEGRKAVOISKLTGKQDYGVTVEEGSPKXDLCTEILIEQARRDPOLGEAS 416
Db 352 ARPSDLTSDGRKALQIARLRLVDFSKSPBEGSASNDRLCTEILIEQARRDPOLGEAS 411
Qy 417 VSLMAGSLSAGRLLYENRVALARIMFMEARVAMDIAQVDTGLENLGSGANPPERQ 476
Db 412 VSLMAGSLSAGRLLYENRVALARIMFMEARVAMDIAQVDTGLENLGSGANPPERQ 471

Qy 477 RTTVLDNPSPTIMEEHLARMTALSKTYELGKRFPPRCNSVLDKIM--DDETDPVSLG 534
Db 472 RTTVLDNAPPKIEEHLNRRLSRVTELGKRFPPRCNSVLDKIMADLSEIAIAND 531
Qy 535 TSAE---KRKPFHLDQVLOKAFHEDEKENDR--SGLSSTSSSTIGAIRPR 582
Db 532 TAEROLKQVMELOITLSKAFTEDEKEEDKTNINISSCSSTSGVDPK 583

RESULT 3
US-09-519-232-64
; Sequence 64, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willis, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 64
; LENGTH: 604
; TYPE: PRT
; ORGANISM: Beta vulgaris
US-09-519-232-64

Query Match 55.2%; Score 1629; DB 4; Length 604;
Best Local Similarity 57.4%; Pred. No. 1.2e-157;
Matches 343; Conservative 81; Mismatches 130; Indels 44; Gaps 10;

Qy 11 AFSDSAS-----VEEGDADADADVEALRLSDNLAAR--SPED 50
Db 15 AFSDSNDISGSSSICCAVATTTTAAENSLSTFPDAALRLSENLDLSFOSLSLD 74
Qy 51 FAFIADARLAVPGGGGGGLRVHRCVLSRSPFLRGVFAARAAAAGGGGDEGSE 107
Db 75 SDSFADAKLV---SDDSREVAHVRCVLSRSPFRSAFAKREK---ERKERVK 127
Qy 108 LEIRELGGGGEVEGYEARLVLDYLSRGVGDLPRAACLCVDEDCAHGCHPAVAFM 167
Db 128 LELKDLA---DFEGRDSVAVVGLYSGKVRNLPBGCCVDEDCSHACRPADV 183
Qy 168 AOVLEAASFPVAVELTNLFORRLDVLKVENVDNLILSVANTCNKSCMKLERCLMD 227
Db 184 VEVLYSHKFEIVELVSLYORHLIDIKIAPDDVLVLSVAMCGNACGLIARCLDK 243
Qy 228 VRSNLDMTLEKSLPDDVIKQIIDARLSLGLISPENKGFPMKHVRIRHRLDSDV 287
Db 244 VRSNLDVTTIDKSLPDDVIKQIIDARLSLGLISPENKGFPMKHVRIRHRLDSDV 303
Qy 288 MLTEGCTNLDADAALHVAVEHCSTTTTLLDLALADVNRNPRGYTVLHIAARREPK 347
Db 304 MLTEGCTNLDADAALHVAVEHCSTTTTLLDLALADVNRNPRGYTVLHIAARREPK 363
Qy 348 IIVSLTKGARPADVTEGRKAVOISKLTGKQDYGVTVEEGSPKXDLCTEILIEQ 407
Db 364 IIVSLTKGARPADVTEGRKAVOISKLTGKQDYGVTVEEGSPKXDLCTEILIEQ 423
Qy 408 RDPOLGASVSLMAGSLSAGRLLYENRVALARIMFMEARVAMDIAQVDTGLENL 467
Db 424 REPLDEGVSLSAKADDDIRMLLYENRVALARIMFMEARVAMDIAQVDTGLENL 483
Qy 468 GANPPERORTVLDNPSPTIMEEHLARMTALSKTYELGKRFPPRCNSVLDKIM--DE 525
Db 484 NI---ADARRNADVNEAFILKEEHLNRRLSRVTELGKRFPPRCNSVLDKIM--DE 540
Qy 526 TDVPSLGRPTS---KRKPFHLDQVLOKAFHEDEKENDRSGLSSTSSSTIGAIRP 580
Db 541 SOLAFGKOTPEERORRKRRLYELQDALTKAFTEDEKEPRKSTLSSSSSTPMG--RP 596

```

1      RESULT 4
2      US-08-989-478-2
3      : Sequence 2, Application US/08989478
4      : Patent No. 5986082
5      : GENERAL INFORMATION:
6      :   APPLICANT: Unkeg, Scott
7      :   APPLICANT: Hunt, Michelle
8      :   APPLICANT: Steiner, Henry-York
9      :   APPLICANT: Ryals, John
10     :   TITLE OF INVENTION: ALTERED FORMS OF THE NIM1 GENE CONFERRING
11     :   TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS
12     :   NUMBER OF SEQUENCES: 32
13     :   CORRESPONDENCE ADDRESS:
14     :   ADDRESSEE: No. 5986082arcis Corporation
15     :   STREET: 3054 Cornwallis Road
16     :   CITY: Research Triangle Park
17     :   STATE: No. 5986082th Carolina
18     :   COUNTRY: USA
19     :   ZIP: 27709
20     :   COMPUTER READABLE FORM:
21     :   MEDIUM TYPE: Floppy disk
22     :   COMPUTER: IBM PC compatible
23     :   OPERATING SYSTEM: PC-DOS/MS-DOS
24     :   SOFTWARE: Patentin Release #1.0, Version #1.30
25     :   CURRENT APPLICATION DATA:
26     :   APPLICATION NUMBER: US/08/989,478
27     :   FILING DATE:
28     :   CLASSIFICATION:
29     :   PRIOR APPLICATION DATA:
30     :   APPLICATION NUMBER: US 60/033,177
31     :   FILING DATE: 13-DEC-1996
32     :   PRIOR APPLICATION DATA:
33     :   APPLICATION NUMBER: US 60/034,379
34     :   FILING DATE: 27-DEC-1996
35     :   PRIOR APPLICATION DATA:
36     :   APPLICATION NUMBER: US 60/034,382
37     :   FILING DATE: 27-DEC-1996
38     :   PRIOR APPLICATION DATA:
39     :   APPLICATION NUMBER: US 60/034,730
40     :   FILING DATE: 10-JAN-1997
41     :   PRIOR APPLICATION DATA:
42     :   APPLICATION NUMBER: US 60/035,021
43     :   FILING DATE: 10-JAN-1997
44     :   PRIOR APPLICATION DATA:
45     :   APPLICATION NUMBER: US 60/035,022
46     :   FILING DATE: 10-JAN-1997
47     :   ATTORNEY/AGENT INFORMATION:
48     :   NAME: Weigis, J. Timochy
49     :   REGISTRATION NUMBER: 38,241
50     :   REFERENCE/DOCKET NUMBER: PF/5-21214/PL/CGC1911
51     :   TELECOMMUNICATION INFORMATION:
52     :   TELEPHONE: (919) 541-8587
53     :   TELEFAX: (919) 541-8587
54     :   INFORMATION FOR SEQ ID NO: 2:
55     :   SEQUENCE CHARACTERISTICS:
56     :   LENGTH: 593 amino acids
57     :   TYPE: amino acid
58     :   TOPOLOGY: linear
59     :   MOLECULE TYPE: protein
60     :   US-08-989-478-2

```

```

Db      72  SDRREVSFHCVLTSARSSFFKSLA--AAKEXDSNNTAAVKLELKEI-----AKDYEG 124

Qy      125 YEALRLVLDYLYSGRVGDLPRKACLCVDEDCAHYCHPVAVMAOYLFAASTFOVAELTN 184
      ::::
Db      125 FDSVAVTVLAAYVYSSSRVPPPKGVSECBADENCCHVACRPVDMLEVLVLAFLFKIEELLT 194

Qy      185 LFORRLDVLDRKVEVDNLLILTSVNLGNKSCMKLERCLDVAVNSNLMITLEKSLPPD 244
      ::::
Db      185 LYQHHLDDVDVQKVIVIEDTLVILIKLANIGSKACMKLLDRKEIIVSNVDVMSLEKSLPEE 244

Qy      245 VIKQIIDARLSGLISPENKGFPMKGVRIIRALDSDDELVYRMLLTEGOTNLDDAFALH 304
      ::::
Db      245 LVKEIIDRKEELGLEVPKVK----KHAVSNVHALSDSDIELVKLTLKEBHTNLLDDCALH 300

Qy      305 YAVECHDSKITTELLDLDLADVNHNRPNRGYTALHTAARREPKIIVSLTLTKGARPADVTF 364
      ::::
Db      301 FAVAYCNVKTITDCLKLDLADVNHNRPNRGYTALHTAARREKQIILSLLEKGSASABATL 360

Qy      365 DGRNAVQISKRLTKQGDYGVYTEBCKFSPKDXLCTEILIEQAEERDPOLEASVSLMAGE 424
      ::::
Db      361 EGRFALMTAKOATMAVECCNNIPKQCKHSLKGRCLCEVILEQEBKREQIPRDVPPSPFAVAD 420

Qy      425 SLRGRLTYLERNVLLAIRIMPWEAENVVADIADVDTLEPNLDSGANPPR-----ORTTV 480
      ::::
Db      421 ELKQTLTLDERKRVLAQRQLPFEADAAHEIAMKGTCEFTVSS--LEFDRLTGTKTSIP 477

Qy      481 DLANSPPFIMKEEHLAARMTALSKTYVELGKRFPEPCSNVLDKIND-DETDEVSIGRDTSAEK 539
      ::::
Db      478 GVKLIAPRIILBEHGSRILKALSKTYVELGKRFPFGCAVLDQIMNCEDLTQLACGEDDTAEK 537

Qy      540 R-----KRPHDLODVLYQKAFHEDKENDSSGLSSSSSSSTS 574

Db      538 RLQKKQRMYELIQETLKKAFFSEDNLELGNSSLDSTSSSTS 576

```

[illegible]

RESULT 5
US-08-996-685-2
Sequence 2, Application US/08996685
Patent No. 6031153
GENERAL INFORMATION:
APPLICANT: Ryals, John
APPLICANT: Friedrich, Leslie
APPLICANT: Uknes, Scott
APPLICANT: Molina, Antonio
APPLICANT: Ruegg, Wilhelm
APPLICANT: Knaut-Belter, Gertrude
APPLICANT: Kung, Ruth
APPLICANT: Kessmann, Helmut
APPLICANT: Coostendorp, Michel
TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS
NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSEE: No. 6031153artis Corporation
STREET: 3054 Cornwallis Road
CITY: Research Triangle Park
STATE: No. 6031153ch Carolina
COUNTRY: USA
ZIP: 27709
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/996,685
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/761,543
FILING DATE: 6-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,378
FILING DATE: 27-DEC-1996

```

PRIOR APPLICATION DATA:
  APPLICATION NUMBER: US 60/034,379
  FILING DATE: 27-DEC-1996
  PRIOR APPLICATION DATA:
    APPLICATION NUMBER: US 60/034,382
    FILING DATE: 27-DEC-1996
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER: US 60/034,730
      FILING DATE: 10-JAN-1997
      PRIOR APPLICATION DATA:
        APPLICATION NUMBER: US 60/035,021
        FILING DATE: 10-JAN-1997
        PRIOR APPLICATION DATA:
          APPLICATION NUMBER: US 60/035,022
          FILING DATE: 10-JAN-1997
          PRIOR APPLICATION DATA:
            APPLICATION NUMBER: US 60/035,024
            FILING DATE: 10-JAN-1997
            PRIOR APPLICATION DATA:
              APPLICATION NUMBER: US 08/875,015
              FILING DATE: 16-JUL-1997
              ATTORNEY/AGENT INFORMATION:
                NAME: Meigs, J. Timothy
                REGISTRATION NUMBER: 38,241
                REFERENCE/DOCKET NUMBER: PF/5-21215/P1/CGC1912
                TELEPHONE: (919) 541-8587
                TELEFAX: (919) 541-8587
                INFORMATION FOR SEQ ID NO: 2:
                  SEQUENCE CHARACTERISTICS:
                    LENGTH: 593 amino acids
                    TYPE: amino acid
                    TOPOLOGY: linear
                  MOLECULE TYPE: protein
US-08-996-685-2

Query Match
Best Local Similarity 43.2%, Score 1276; DB 3; Length 593;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNMFSDSDSASVEGDADADADVEALRLSDNLAARFSPDFALDARIAPVG 64
DB 17 TSFATNTDTSIYVLAAGVLTGPVSAIQILSNFESVFPSPD--FYSDAKVLT--- 71
QY 65 GGGGDDLVRHRCVLSARSPFLRGVFAARRAAAAAGGGEDESERLEIRELLGGGSEVEVG 124
DB 72 -SDREVSFHRCVLSARSPFLRGVFAARRAAAAAGGGEDESERLEIRELLGGGSEVEVG 124
QY 125 YEALRLVDLYLSGRVGDLPKAACTCVDEDCAHVGHCHPAVMAOVLPAASTFOVAELTN 184
DB 125 FDSVVTVLAIVYSSRVPRPKGVSCADENCCHVACRPVDFMLVLYLAFIFKIPELIT 184
QY 185 LFORRLDVLDRKEVNLLIISVANLCKSKCMKLEIRCLDMVVRNSNMDITLESKLPD 244
DB 185 LYORHLDDVADKVIEDTLVIKLANICGKACMKLLDRCKEIIIVASNDVMSLEKSPDE 244
QY 245 VIKQIIDARLSGLTSPENKGFPPKQVRIHRAALSDSDEVELYRMLTETGQTNLDAFALH 304
DB 245 LYEVEIIRREKELGLEVPKVK---KHSVNHKALSDSDEIELVKLLKEDHTNLDACALH 300
QY 305 VAVEHDSKITTELLDLADLVNHNPRGYTVLHIAARRRPRKIVISLITGKARPAVTF 364
DB 301 FAVAVCNVKTATDLKLDLADVNHNPRGYTVLHVAAMRKEPOLITSLKGSASASBATL 360
QY 365 DGRKAVQISKRLTGQGYFVGTBEGKPSKRLCITELIQARRDPOLGASVSLMAGE 424
DB 361 EGRFTALIAKQATVAVECNNTPEQCKISLKGRLCVELLEBEDRKBOQIPRDVPSFAVAD 420
QY 425 SLRGLLYLERVVALARIMPEMARVAMDIAVDGTLEFNLGSGANPPPPR---QRTIV 480
DB 421 ELKMTLLDLERKVALAORLFTPEQAAMEIAEMKGTCEFIIVTS---LEPRLTGTGRTSP 477
QY 481 DLNBSPIKMEHLARMTALSKYTELGKRFPPGCSNVLDKIND-DTDPVSLGRDTSAEK 539

```

```

DB 478 GKVIAPFIIIEHQSRILKALSKYTELGKRFPPGCSNVLDKINDCEUJLQACEDDTAK 537
QY 540 R---KRPFDLODVLQRAFHEDKEENDRSGLSSSSSTS 574
DB 538 RLQKRYMEIQTILKCAFSEDNLELGNSTLDTSTSTS 576

RESULT 6
US-08-880-179-3
  Sequence 3, Application US/08880179
  Patent No. 6091004
  GENERAL INFORMATION:
    APPLICANT: Ryals, John
    APPLICANT: Delaney, Terry
    APPLICANT: Friedlich, Leslie
    APPLICANT: Weymann, Kristianne
    APPLICANT: Layton, Kay
    APPLICANT: Ellis, Daniel
    APPLICANT: Uxnes, Scott
    APPLICANT: Jesse, Taco
    APPLICANT: Vos, Pieter
  TITLE OF INVENTION: GENE ENCODING A PROTEIN INVOLVED IN THE
  TITLE OF INVENTION: SIGNAL TRANSDUCTION CASCADE LEADING TO SYSTEMIC ACQUIRED RESIS
  TITLE OF INVENTION: IN PLANTS
  NUMBER OF SEQUENCES: 17
  CORRESPONDENCE ADDRESS:
    ADDRESSEE: No. 609104artie Corporation
    STREET: 520 White Plains Road, P.O. Box 2005
    CITY: Tarrytown
    STATE: New York
    COUNTRY: USA
    ZIP: 10591
  COMPUTER READABLE FORM:
    MEDIUM TYPE: Floppy disk
    COMPUTER: IBM PC compatible
    OPERATING SYSTEM: PC-DOS/MS-DOS
    SOFTWARE: Patent In Release #1.0, Version #1.30
  CURRENT APPLICATION DATA:
    APPLICATION NUMBER: US/08/880,179
    FILING DATE:
  CLASSIFICATION: 800
  ATTORNEY/AGENT INFORMATION:
    NAME: Meigs, J. Timothy
    REGISTRATION NUMBER: 38,241
    REFERENCE/DOCKET NUMBER: CGC 1909
  TELECOMMUNICATION INFORMATION:
    TELEPHONE: (919) 541-8587
    TELEFAX: (919) 541-8587
  INFORMATION FOR SEQ ID NO: 3:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 593 amino acids
      TYPE: amino acid
      TOPOLOGY: linear
    MOLECULE TYPE: protein
US-08-880-179-3

Query Match
Best Local Similarity 43.2%, Score 1276; DB 3; Length 593;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNMFSDSDSASVEGDADADADVEALRLSDNLAARFSPDFALDARIAPVG 64
DB 17 TSFATNTDTSIYVLAAGVLTGPVSAIQILSNFESVFPSPD--FYSDAKVLT--- 71
QY 65 GGGGDDLVRHRCVLSARSPFLRGVFAARRAAAAAGGGEDESERLEIRELLGGGSEVEVG 124
DB 72 -SDREVSFHRCVLSARSPFLRGVFAARRAAAAAGGGEDESERLEIRELLGGGSEVEVG 124
QY 125 YEALRLVDLYLSGRVGDLPKAACTCVDEDCAHVGHCHPAVMAOVLPAASTFOVAELTN 184
DB 125 FDSVVTVLAIVYSSRVPRPKGVSCADENCCHVACRPVDFMLVLYLAFIFKIPELIT 184

```



```
Db      192 VQKXVIEDTLVVLKLANIGKCKKFLDKCREIIVKSNVDVVLTKKSLPEXIAKQVYIDR 251
Qy      254 LSLGISPNKGPNNKGVRIHRAALSDVVELVRLMLTGGOTLDDAFLHVAVECDK 313
Db      252 KELGLEVAE----PEKGVSNHKALESDDLDVLMKKGHTNLDABVLAHFVAYCDEK 307
Qy      314 ITTELIDLADVNHRNPRGYTLVHIAARRREPKIIVSLITKGARPAVYTFDGRKAVOIS 373
Db      308 TARNILELGFADVNRNRPNGYTLVHVAARKETTLALLITKGANLIMSLDGRITALLA 367
Qy      374 KRLTKOGDYFGYTEBEKSPKORLCIEIEQOER-RDPOLGEASVSLNMAGESLRRLLY 432
Db      368 KQVTKAECC-ILEKSKLAKAGGVCEIIKOPNTRPEPPEDEVPSLVAADQFKIRLID 426
Qy      433 LBNRVLARIIMPEARVAMDIAGVDTLEFNLGSGANPPREBQRTTVVLNESPFIMKE 492
Db      427 LBNRVAMARCLYPMERQVAMDFARMKGTREPVV-----TTATDLHMEPFKPEVM 475
Qy      493 HLAHMTALSKTYELGKRFPPRCNVLDKIMDE--TDPSVSLGRDT--SAEKRRPHDQ 547
Db      476 HOSRLTALSKTYEFGKRFPPRCNVLDLIVDSEDLITLALVEBDTPEJQQRQRMELQ 535
Qy      548 DVLQKAFHEDKXENBRSGJLSSSSSTS 574
Db      536 EIVQMAFSDKEDLKGKSLSSSSSTS 562
```

```
RESULT 10
US-09-519-232-20
; Sequence 20, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 20
; LENGTH: 600
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-09-519-232-20
```

```
Query Match      41.1%; Score 1213.5; DB 4; Length 600;
Best Local Similarity 45.8%; Pred. No. 4.4e-115;
Matches 277; Conservative 105; Mismatches 172; Indels 51; Gaps 17;

Qy      1 MEBPTSHVNNAPSDSDSASVEBGD-----ADADAD-----VEALRRLSDNLAAPR 46
Db      1 MATTTTTRARFSDSYEFNTSGNSFPFAABSSLDYTBFLTPPEVSALKLISNCLSVFD 60
Qy      47 SPEDFAFLDARIAVGGGGGDLVRHRCVLSARSPPFLRGVAFARAAAAAGGGGDSGE 106
Db      61 SBE--TFYSDAKVL-----AGGREVSFHRCTLSARIP---VF-KSALTVKEQKSTTV 109
Qy      107 RLRLRLGGGGEVEVGEALRLVLDYLSGRVGLDPRKAACLCVDEDCAHVCHPAVAF 166
Db      110 KIQLKKEI-----ARDYEVGDSVAVALAYVSGRVSPPKGASACVDDCCHVACRSKVP 165
Qy      167 MAQVLPAASTFOVAELTNLFQRRLDVLDKVEVDNLLLSVANLGNKSCMKLIERCLDM 226
Db      166 MVEVLVLSFVFOIQELVTLYERQFLVVKVVEDLIVFKDPTLCGTTYKKLLDRCIET 225
Qy      227 VVRNSNDMTTEKSLPPDVYIKQIIDARLSLGLISPNKGPNNKGVRIHRAALSDVVELY 286
Db      226 IYKSDIELVLSKSLPQHIFKQIIDREALCLBPPKLE---RHVGNIKYKALSDSDVELY 281
```

```
Qy      287 KMLLTGGQTNLDAPALHYAVEHCOSKITTELLDLADLADVNHRNPRGYTVLHIAARRRP 346
Db      282 KMLLEGHNTLDBEAVALHFAIAHCAVKTAYDLELELADVNLRNPRGYTVLHVAARKRP 341
Qy      347 KIIVSLITKGARPAVYTFDGRKAVOISKRLTKOGDYFGYTEBEKSPKORLCIEIEQOER 406
Db      342 KIISLIMKGANILDTTLGRTALVYVKRLTYAADVKTISTEDGPKLGGCLCEVLEH-B 400
Qy      407 RDPOLG--EASVSLAMAGESLGRLLYENRVALARIIMPEARVAMDIAGVDTLEFNL 464
Db      401 QKLEVLSPIEASLSLPTPEBELRMLLYENRVALARLLFPVETEVQGAKEIEFCERT 460
Qy      465 LGGANPPE--RQRTTVLINESPFIMKEEHLARMTALSKTYELGKRFPPRCNVLDKIM 522
Db      461 -ASSLEPDHIGEKRTSLDLMNMAPFOIHEKHSRLDALCKTYEELGKRYFKRCS--LDHFM 517
Qy      523 DDE--TDPSVSLGRDT--SAEKRRPHDQDVLQKAFHEDKXENBRSGJLSSSSSTSIGA 577
Db      518 DTEDLNHLASVEBDPEPKRLQKQRYMELQETLMKTFSEDKCE--CGKSTPKPTS--A 572
Qy      578 IRPRR 582
Db      573 VRSNR 577
```

```
RESULT 11
US-09-519-232-72
; Sequence 72, Application US/09519232
; Patent No. 6528702
; GENERAL INFORMATION:
; APPLICANT: Salmeron, John
; APPLICANT: Weislo, Laura
; APPLICANT: Willits, Michael
; APPLICANT: Mengiste, Tesfaye
; TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
; FILE REFERENCE: S-30857A/RTP2095
; CURRENT APPLICATION NUMBER: US/09/519,232
; CURRENT FILING DATE: 2000-03-06
; NUMBER OF SEQ ID NOS: 74
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 72
; LENGTH: 601
; TYPE: PRT
; ORGANISM: Arabidopsis thaliana
US-09-519-232-72
```

```
Query Match      41.1%; Score 1213.5; DB 4; Length 601;
Best Local Similarity 45.8%; Pred. No. 4.4e-115;
Matches 277; Conservative 105; Mismatches 172; Indels 51; Gaps 17;

Qy      1 MEBPTSHVNNAPSDSDSASVEBGD-----ADADAD-----VEALRRLSDNLAAPR 46
Db      2 MATTTTTRARFSDSYEFNTSGNSFPFAABSSLDYTBFLTPPEVSALKLISNCLSVFD 61
Qy      47 SPEDFAFLDARIAVGGGGGDLVRHRCVLSARSPPFLRGVAFARAAAAAGGGGDSGE 106
Db      62 SBE--TFYSDAKVL-----AGGREVSFHRCTLSARIP---VF-KSALTVKEQKSTTV 110
Qy      107 RLRLRLGGGGEVEVGEALRLVLDYLSGRVGLDPRKAACLCVDEDCAHVCHPAVAF 166
Db      111 KIQLKKEI-----ARDYEVGDSVAVALAYVSGRVSPPKGASACVDDCCHVACRSKVP 166
Qy      167 MAQVLPAASTFOVAELTNLFQRRLDVLDKVEVDNLLLSVANLGNKSCMKLIERCLDM 226
Db      167 MVEVLVLSFVFOIQELVTLYERQFLVVKVVEDLIVFKDPTLCGTTYKKLLDRCIET 226
Qy      227 VVRNSNDMTTEKSLPPDVYIKQIIDARLSLGLISPNKGPNNKGVRIHRAALSDVVELY 286
Db      227 IYKSDIELVLSKSLPQHIFKQIIDREALCLBPPKLE---RHVGNIKYKALSDSDVELY 282
Qy      287 KMLLTGGQTNLDAPALHYAVEHCOSKITTELLDLADLADVNHRNPRGYTVLHIAARRRP 346
Db      283 KMLLEGHNTLDBEAVALHFAIAHCAVKTAYDLELELADVNLRNPRGYTVLHVAARKRP 342
```

QY 347 KIIIVSLTKARPADVTFDRKAVOISKRLLTKQGYFVTEBGRPKRDLCTEILEQAE 406
 Db 343 KLIISLMKGANIIDTLDRGRTALVTKRLTKADVKSTEDSTPBLKGLCEVLEH-E 401
 QY 407 RRDPOG-G-BASVSLMAGSLGRLLYLENVALARIMPEARVAMDIAVDGTLFEN 464
 Db 402 OKLEIYSPITASISLPTPEELMRLLYENVALARLLFPVETETVQIALTEICEFT 461
 QY 465 LSGGANPPPE--RQRTTVDLNESPFIKKEHLARMTALSKVTELGKFFPRCSNVLDKIM 522
 Db 462 -ASSLPRDHIGKRTSLDNMAPFOIHKHLRLALCKTVELGKRYFKRCS--LDHFM 518
 QY 523 DDE--TDVYSLGRDT---SAEKRPFDIJDVLOKAFHEDKENDRSGLSSSSSSTSGA 577
 Db 519 DIEDNLHLASVEEDTPEKRLQKORMYELQETLMKTFSEDEKE---CKKSTPKPTS--A 573
 QY 578 IRPRR 582
 Db 574 VRNR 578

RESULT 12

US-08-989-478-12
 ; Sequence 12, Application US/08989478

GENERAL INFORMATION:

APPLICANT: Uknes, Scott
 APPLICANT: Hunt, Michelle
 APPLICANT: Steiner, Henry-York
 APPLICANT: Ryals, John
 TITLE OF INVENTION: ALTERED FORMS OF THE NIM1 GENE CONFERRING
 NUMBER OF SEQUENCES: 32
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: No. 5986082artls Corporation
 STREET: 3054 Cornwallis Road
 CITY: Research Triangle Park
 STATE: No. 5986082th Carolina
 COUNTRY: USA
 ZIP: 27709
 COMPUTER READABLE FORM:
 MEDIUM TYPE: Floppy disk
 OPERATING SYSTEM: PC-DOS/MS-DOS
 SOFTWARE: Patent in Release #1.0, Version #1.30
 CURRENT APPLICATION DATA:
 APPLICATION NUMBER: US/08/989,478
 FILING DATE:
 CLASSIFICATION:
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 60/033,177
 FILING DATE: 13-DEC-1996
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 60/034,379
 FILING DATE: 27-DEC-1996
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 60/034,382
 FILING DATE: 27-DEC-1996
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 60/034,730
 FILING DATE: 10-JAN-1997
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 60/035,021
 FILING DATE: 10-JAN-1997
 PRIOR APPLICATION DATA:
 APPLICATION NUMBER: US 60/035,022
 FILING DATE: 10-JAN-1997
 ATTORNEY/AGENT INFORMATION:
 NAME: Meigs, J. Timothy
 REGISTRATION NUMBER: 38,241
 REFERENCE/DOCKET NUMBER: PF/5-21214/P1/CGC1911
 TELECOMMUNICATION INFORMATION:

TELEPHONE: (919) 541-8587
 TELEFAX: (919) 541-8689
 INFORMATION FOR SEQ ID NO: 12:
 SEQUENCE CHARACTERISTICS:
 LENGTH: 521 amino acids
 TYPE: amino acid
 TOPOLOGY: linear
 US-08-989-478-12
 MOLECULE TYPE: protein

Query Match 40.3%; Score 1188.5; DB 2; Length 521;
 Best Local Similarity 48.0%; Pred. No. 1.3e-112;
 Matches 251; Conservative 100; Mismatches 149; Indels 23; Gaps 7,

QY 5 TSHVTNAPFSDSDSASVEEEDADADAVEALRSLSDNLAAAPSPDFALDARAVGCG 64
 Db 17 TSFVATDNTDSSIVYLAAGVLTGPDVAGALQLSNFSFSDSPDD--FYSDAKVL--- 71
 QY 65 GGGGGDLRVRHCVLARSFPLRGVFPARPAAGGGGSGSERLELRLGGGEEVEVG 124
 Db 72 -SDGREVSFHRCVLSARSSFFKSALA--AAKKKDSNNTAAVKLEKEI---AKOYEVG 124
 QY 125 YEALRLVLDYLYSGRVDLPRAACLCVDEDCAHVCGHAAVAFMAQVLPAASTFOVALTN 184
 Db 125 FDSVTVLADYLYSSRYRPPPKGVSECADENCCHVACRPADVFMLEVIYLAIFIKIPILIT 184
 QY 185 LFORRLDVLDKVEVDNLLILSVANLCNKSCKMLERCLDMVVRNSMLDMITTEKSLPPD 244
 Db 185 LYORHLVDVDRVIEDTLVILKLANICGKACMKLDRCKEIIYKXSVNDVMSLEKSLPEE 244
 QY 245 VIKQIIDARSLGLISPPNKGFPNKHVRIRHRAIDSDVDVLYKMLTGGGTNIDDAFALH 304
 Db 245 LKKEIIDRRELGLFVKKV---KHVSNVHKALDSDDIDELVLLKEDHTNIDDCALH 300
 QY 305 YAVHCOSKTTTELLDLADLVNHRNPRGYTVLHIAARRRPRKIYSLITKGRAPADVF 364
 Db 301 FAVAYCNVKTATDLKLADIADVHRNPRGYTVLHVAAMRREPILISLEKGSASEATL 360
 QY 365 DGRKAVOISKRLLTKQGYFVTEBGRPKRDLCTEILEQERRDPOLGEASVSLMAGE 424
 Db 361 EGRYALMIAKQATVAECNNIPFOCKHSLKGRICVEILEQEDREQIPRDVPPSFVAVD 420
 QY 425 SLRGRLLYLENVALARIMPEARVAMDIAVDGTLFENLGSANPPPE---QRTIV 480
 Db 421 ELKWTLLDENRVALAQLPFTPAQAAMEIAEMKGTCEFTIVS---LEPDRLTGKRTISP 477
 QY 481 DLNESPRIKKEHLARMTALSKVTELGKFFPRCSNVLDKIND 523
 Db 478 GVKIAPRIIEHQSLKALSKVTELGKFFPRCSAVIDQIWN 520

RESULT 13

US-08-996-685-12
 ; Sequence 12, Application US/08996685

GENERAL INFORMATION:

APPLICANT: Ryals, John
 APPLICANT: Friedrich, Leslie
 APPLICANT: Uknes, Scott
 APPLICANT: Molina, Antonio
 APPLICANT: Ruesse, Wilhelm
 APPLICANT: Knauf-Beiter, Gertrude
 APPLICANT: Kung, Ruth
 APPLICANT: Kessmann, Helmut
 APPLICANT: Oostendorp, Michael
 TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS
 NUMBER OF SEQUENCES: 32
 CORRESPONDENCE ADDRESS:
 ADDRESSEE: No. 6031153artls Corporation
 STREET: 3054 Cornwallis Road
 CITY: Research Triangle Park
 STATE: No. 6031153th Carolina
 COUNTRY: USA

ZIP: 27709
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
OPERATING SYSTEM: IBM PC compatible
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/996,685
FILING DATE:
CLASSIFICATION:
APPLICATION NUMBER: US 08/761,543
FILING DATE: 6-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,378
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,379
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,382
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,730
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,021
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,022
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,024
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/875,015
FILING DATE: 16-JUL-1997
ATTORNEY/AGENT INFORMATION:
NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF/5-21215/PL/CGC1912
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919) 541-8587
TELEFAX: (919) 541-8689
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 521 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-996-685-12

Query Match 40.3%; Score 1188.5; DB 3; Length 521;
Best Local Similarity 48.0%; Pred. No. 1.3e-112;
Matches 251; Conservative 100; Mismatches 149; Indels 23; Gaps 7;

QY 5 TSHYTNAPSDDSAVSEEGDADADAVEALRLSDMLAAFFSPFPAFLADRIAPVPG 64
DB 17 TTFVATDNDDSSIVYAAQVLTGPVSAQLQLISNFSFSPDPD--FYSDKVL--- 71
QY 65 GCGGGLRVHRCVLSARSPFLRGVFAARRAAAAAGCGEGDSERLEIRELLGGGEEVEVG 124
DB 72 -SDGRVSPFRCVLSARSSFFKSALA--AAKKEKDSNNTAAVLEIKET----AKDYEVG 124
QY 125 YEALRLVLDLYSGRYGDLPKAACLCVDEDCAHVGHGCHPAVAFMAQVLFPAASTFOVALTN 184
DB 125 FDSVVTVLVVYSSRVRPPKGVSECDACRCHVACRPADVFLVLYLAFFIKIPELIT 184
QY 185 LFORRLVLDLQKVEVNNLLILISVANLCNKSCKMLERCLDMVVRNSLDMITLTKSLPDP 244
DB 185 LFORRLVLDVDDKVVLDLVLILGLANI CGACCKMLDRCKEITIVKSNVDVSLKSLPDE 244
QY 245 VIKQIIDARLSGLISPNKGFPPNKIVRIHRALDSDDELVYMLLTGQTNLDPAFLH 304

DB 245 LKVEIIDRRKEGLEVPKVK---KRVSNVHALSDDIETLVKLKEKHTNLDHCAH 300
QY 305 YAVEHCDSKITTELDLADLVNHNRPGRYTVLHIAARRREPKIIVSLTKGARPADVTE 364
DB 301 FAVAYCNVKTATDLDLADLVNHNRPGRYTVLHIAAAMKEKQILSLLEKGSASEATLV 360
QY 365 DGRKAVQISKRLLTKQDYPGVTEEGKPSPKDRLCIEILEQABRRDQLGEASVSLMAGE 424
DB 361 EGRALMLAKQATMAVECNINIEQCKHSLKGRLCVETLEQEDKREQIPRDVPSFAVAD 420
QY 425 SLRGRLVLENRVALLARITFPMEARVANDIAQVDGTLFENLSSGANPPER---ORTV 480
DB 421 ELKMTLLDLENRVALLAQRLPTEQAAMIEAMKGTCEPIVTS--LEPDRLTGTRTSR 477
QY 481 DINESPFIWKEEHLARMTALSTVLEKRPFRCSVLDKIND 523
DB 478 GVKIAPFRIEBHOSRKLAKSTVELGKFFRCSVLDQIMN 520

RESULT 14
US-08-989-478-10
Sequence 10, Application US/08989478
Patent No. 5986082
GENERAL INFORMATION:
APPLICANT: Unnes, Scott
APPLICANT: Hunt, Michelle
APPLICANT: Steiner, Henry-York
APPLICANT: Ryals, John
TITLE OF INVENTION: ALTERED FORMS OF THE NIM1 GENE CONFERRING
TITLE OF INVENTION: DISEASE RESISTANCE IN PLANTS
NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSEE: No. 5986082art1s Corporation
STREET: 3054 Cortwallis Road
CITY: Research Triangle Park
STATE: No. 5986082th Carolina
COUNTRY: USA
ZIP: 27709
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/989,478
FILING DATE:
CLASSIFICATION:
APPLICATION NUMBER: US 60/033,177
FILING DATE: 13-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,379
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,382
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,730
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,021
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,022
FILING DATE: 10-JAN-1997
ATTORNEY/AGENT INFORMATION:
NAME: Meigs, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF/5-21214/PL/CGC1911
TELECOMMUNICATION INFORMATION:
TELEPHONE: (919) 541-8587
TELEFAX: (919) 541-8689

INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 469 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-989-478-10

Query Match 38.4%; Score 1134; DB 2; Length 469;
Best Local Similarity 51.4%; Pred. No. 4,1e-107;
Matches 233; Conservative 89; Mismatches 115; Indels 16; Gaps 5;

QY 131 VLDTYSGRVGDLPRACLCVDEDCAHVGHAPVAFMAQVLFPASTFOVAELTNLFQRL 190
DB 7 VLAVYSSRVPRPPKGVSECDENCCVACRPADVFMLEVLVLAIFIKIPELITLYGRHL 66
QY 191 LDVLDKVEVDNLLILSVANLCNKSCKMLERCLDMVVRNSLDMITLTKSLPPDVYKQII 250
DB 67 LDVVDKVVIEDTLVILKLANICGAKCMKLDRCKEIIVKSNVDMVSLKSLPEELVKEII 126
QY 251 DARLSGLISPEKNGFPNKHRRIRHRLDSDVLEVRMLTTEGQTNLDAPALHVAVEHC 310
DB 127 DRKEIGLEVPKVK---KHVSNVHKAALDSDDIELVKLLKSDHTNLDDACALHFAVAVC 182
QY 311 DSKITTELDLADVNHRNPRGYTVLHIAARREPKIIVSLITKARPADVTEDGRKAV 370
DB 183 NVKATATDLKLDLADVNHRNPRGYTVLHVAAMRKEPQILSLIEKGASASEATLEGRTAL 242
QY 371 QISKRLTKQGDYFGYTEEGKSPKRDLCIEILQAEERDPOLGEASVSLAMAGESLGRGL 430
DB 243 MIKQATMAVECNNTPEQCKHSLKGRLCVEILIEQEDKEQIIPROVPSFAVAADLKMVL 302
QY 431 LYLENRVALARIMFMEARVAMDIADVGTLEFNLGSGANPPRR---QRTVDLNESE 486
DB 303 LDLENRVALLAQRFLPTEQAAMEIAEMKGTCEFIIVTS---LEPRLTGTRTSPGVKIAP 359
QY 487 FIMEEHLARMTALSKVTELGKRFPPRCNVLDKIMD-DETPDPSLGRDTSAKR---K 541
DB 360 FRILEEHOSRLKALSKVTELGKRFPPRCNVLDKIMD-DETPDPSLGRDTSAKR---K 541
QY 542 RFHLDQVTLQAFHEDEKENDRSGLSSSSSSTS 574
DB 420 RYMEIGETLKAFSEDLNLEIGANSLTSTSTSTS 452

RESULT 15

US-08-996-685-10
Sequence 10, Application US/08996685
Patent No. 6031153

GENERAL INFORMATION:

APPLICANT: Ryals, John
APPLICANT: Friedrich, Leslie
APPLICANT: Umes, Scott
APPLICANT: Molina, Antonio
APPLICANT: Ruess, Wilhelm
APPLICANT: Knauf-Belter, Gertrude
APPLICANT: Kessmann, Helmut
APPLICANT: Oostendorp, Michael
TITLE OF INVENTION: METHOD FOR PROTECTING PLANTS
NUMBER OF SEQUENCES: 32
CORRESPONDENCE ADDRESS:
ADDRESSER: No. 6031153artis Corporation
STREET: 3054 Cornwallis Road
CITY: Research Triangle Park
STATE: No. 6031153th Carolina
COUNTRY: USA
ZIP: 27709

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/996,685
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/761,543
FILING DATE: 6-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,378
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,379
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,382
FILING DATE: 27-DEC-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/034,730
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,021
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,022
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/035,024
FILING DATE: 10-JAN-1997
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/875,015
FILING DATE: 16-JUL-1997
ATTORNEY/AGENT INFORMATION:
NAME: Weigs, J. Timothy
REGISTRATION NUMBER: 38,241
REFERENCE/DOCKET NUMBER: PF/5-21215/P1/CGC1912
TELEPHONE: (919) 541-8587
TELEFAX: (919) 541-8689
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 469 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-996-685-10

Query Match 38.4%; Score 1134; DB 3; Length 469;
Best Local Similarity 51.4%; Pred. No. 4,1e-107;
Matches 233; Conservative 89; Mismatches 115; Indels 16; Gaps 5;

QY 131 VLDTYSGRVGDLPRACLCVDEDCAHVGHAPVAFMAQVLFPASTFOVAELTNLFQRL 190
DB 7 VLAVYSSRVPRPPKGVSECDENCCVACRPADVFMLEVLVLAIFIKIPELITLYGRHL 66
QY 191 LDVLDKVEVDNLLILSVANLCNKSCKMLERCLDMVVRNSLDMITLTKSLPPDVYKQII 250
DB 67 LDVVDKVVIEDTLVILKLANICGAKCMKLDRCKEIIVKSNVDMVSLKSLPEELVKEII 126
QY 251 DARLSGLISPEKNGFPNKHRRIRHRLDSDVLEVRMLTTEGQTNLDAPALHVAVEHC 310
DB 127 DRKEIGLEVPKVK---KHVSNVHKAALDSDDIELVKLLKSDHTNLDDACALHFAVAVC 182
QY 311 DSKITTELDLADVNHRNPRGYTVLHIAARREPKIIVSLITKARPADVTEDGRKAV 370
DB 183 NVKATATDLKLDLADVNHRNPRGYTVLHVAAMRKEPQILSLIEKGASASEATLEGRTAL 242
QY 371 QISKRLTKQGDYFGYTEEGKSPKRDLCIEILQAEERDPOLGEASVSLAMAGESLGRGL 430
DB 243 MIKQATMAVECNNTPEQCKHSLKGRLCVEILIEQEDKEQIIPROVPSFAVAADLKMVL 302
QY 431 LYLENRVALARIMFMEARVAMDIADVGTLEFNLGSGANPPRR---QRTVDLNESE 486
DB 303 LDLENRVALLAQRFLPTEQAAMEIAEMKGTCEFIIVTS---LEPRLTGTRTSPGVKIAP 359

Qy 487 FIMKEEHLMRTALSKTVELGKRFPPRCGNVLDKIND-DETPVSLGRDTSAEKR---K 541
| : ||| : | : ||| ||| ||| ||| : | : ||| :
Db 360 FRIEEHQRLKALSKTVELGKRFPPRCSAVLDOIMNCEDLTQIACGEDDTAEKRLQKKQ 419
| : ||| : | : ||| ||| ||| ||| : | : ||| :
Qy 542 RPHDLODVLOKAFHEPKENDRSGLSSSSSSTS 574
| : ||| : | : ||| ||| ||| ||| : | : ||| :
Db 420 RYMEIOETLKKAFSEDNLELGNLSLTDSTSTS 452
| : ||| : | : ||| ||| ||| ||| : | : ||| :

Search completed: January 19, 2005, 15:54:20
Job time : 48 secs

This page blank (uspio)

GenCore version 5.1.6
Copyright (c) 1993 - 2005 CompuGen Ltd.

OM protein - protein search, using bw model

Run on: January 19, 2005, 15:51:03 ; Search time 149 Seconds

(without alignments)
1411.211 Million cell updates/sec

Title: US-09-294-539-4

Perfect score: 2952
Sequence: 1 MEPPSHVTNAPSDSDASV.....RSGLSSTSTSGAIRPRR 582

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1608061 seqs, 361289386 residues

Total number of hits satisfying chosen parameters: 1608061

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :

Published Applications AA:*
1: /cgn2_6/ptodata/1/pubppaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/1/pubppaa/PCT_NEW_PUB.pep:*
3: /cgn2_6/ptodata/1/pubppaa/US06_NEW_PUB.pep:*
4: /cgn2_6/ptodata/1/pubppaa/US06_PUBCOMB.pep:*
5: /cgn2_6/ptodata/1/pubppaa/US07_NEW_PUB.pep:*
6: /cgn2_6/ptodata/1/pubppaa/PCTUS_PUBCOMB.pep:*
7: /cgn2_6/ptodata/1/pubppaa/US08_NEW_PUB.pep:*
8: /cgn2_6/ptodata/1/pubppaa/US09_PUBCOMB.pep:*
9: /cgn2_6/ptodata/1/pubppaa/US09_PUBCOMB.pep:*
10: /cgn2_6/ptodata/1/pubppaa/US09C_PUBCOMB.pep:*
11: /cgn2_6/ptodata/1/pubppaa/US09C_PUBCOMB.pep:*
12: /cgn2_6/ptodata/1/pubppaa/US09_NEW_PUB.pep:*
13: /cgn2_6/ptodata/1/pubppaa/US10_PUBCOMB.pep:*
14: /cgn2_6/ptodata/1/pubppaa/US10_PUBCOMB.pep:*
15: /cgn2_6/ptodata/1/pubppaa/US10C_PUBCOMB.pep:*
16: /cgn2_6/ptodata/1/pubppaa/US10C_PUBCOMB.pep:*
17: /cgn2_6/ptodata/1/pubppaa/US10_NEW_PUB.pep:*
18: /cgn2_6/ptodata/1/pubppaa/US11_NEW_PUB.pep:*
19: /cgn2_6/ptodata/1/pubppaa/US60_NEW_PUB.pep:*
20: /cgn2_6/ptodata/1/pubppaa/US60_PUBCOMB.pep:*

Prod. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2934	99.4	582	10	US-09-848-841-10
2	2907.5	98.5	615	15	US-10-374-780A-597
3	2907.5	98.5	615	16	US-10-437-963-153749
4	1913	64.8	447	17	US-10-425-115-246254
5	1737	58.8	576	14	US-10-328-675A-4
6	1672.5	56.7	588	8	US-08-908-884-14
7	1672.5	56.7	588	9	US-09-908-923-14
8	1672.5	56.7	588	14	US-10-328-675A-2
9	1629	55.2	604	14	US-10-328-675A-64
10	1425.5	48.3	335	15	US-10-425-114-68962
11	1276	43.2	593	8	US-08-908-884-3
12	1276	43.2	593	9	US-09-908-923-3
13	1276	43.2	593	10	US-09-934-455-74

14	1276	43.2	593	10	US-09-848-841-17	Sequence 17, Appl
15	1276	43.2	593	13	US-10-079-035-3	Sequence 3, Appl
16	1276	43.2	593	14	US-10-225-068-242	Sequence 242, App
17	1276	43.2	593	14	US-10-225-066A-954	Sequence 954, App
18	1276	43.2	593	15	US-10-374-780A-48	Sequence 48, Appl
19	1222.5	41.4	579	14	US-10-328-675A-6	Sequence 6, Appl
20	1213.5	41.1	600	14	US-10-328-675A-20	Sequence 20, Appl
21	1213.5	41.1	601	10	US-09-934-455-434	Sequence 434, App
22	1213.5	41.1	601	14	US-10-328-675A-72	Sequence 72, Appl
23	1213.5	41.1	601	15	US-10-437-963-122865	Sequence 2092, Ap
24	1213.5	41.1	601	15	US-10-412-699B-814	Sequence 814, App
25	1124	38.1	532	15	US-10-424-599-164227	Sequence 164227,
26	1124	38.1	532	15	US-10-425-114-38340	Sequence 38340, A
27	1117.5	37.9	624	15	US-10-374-780A-1466	Sequence 1466, Ap
28	1117.5	37.9	624	16	US-10-437-963-122865	Sequence 122865,
29	1117.5	37.9	635	10	US-09-848-841-16	Sequence 16, Appl
30	1060.5	35.9	591	14	US-10-328-675A-66	Sequence 66, Appl
31	1045.5	35.4	592	13	US-10-047-593-2	Sequence 2, Appl
32	1045.5	35.4	592	13	US-10-047-593-4	Sequence 4, Appl
33	1045.5	35.4	609	14	US-10-318-780-11	Sequence 11, Appl
34	1045.5	35.4	607	14	US-10-318-780-10	Sequence 10, Appl
35	1033.5	35.0	571	15	US-10-424-599-217392	Sequence 217392,
36	1031	34.9	586	14	US-10-328-675A-8	Sequence 8, Appl
37	1031	34.9	586	15	US-10-374-780A-2062	Sequence 2062, Ap
38	1031	34.9	586	17	US-10-739-930-5507	Sequence 5907, Ap
39	1012	34.3	501	16	US-10-767-701-44737	Sequence 44737, A
40	1009	34.2	574	14	US-10-328-675A-70	Sequence 70, Appl
41	995	33.7	475	14	US-10-318-780-4	Sequence 4, Appl
42	987	33.4	455	10	US-09-848-841-12	Sequence 12, Appl
43	971.5	32.9	601	14	US-10-328-675A-18	Sequence 18, Appl
44	915	31.0	204	16	US-10-767-701-53491	Sequence 53491, A
45	846.5	28.7	409	15	US-10-425-114-39468	Sequence 39468, A

ALIGNMENTS

RESULT 1
US-09-848-841-10
; Sequence 10, Application US/0984841
; Publication No. US20030172411A1
; GENERAL INFORMATION:
; APPLICANT: E. I. du Pont de Nemours and Company
; APPLICANT: Butler, Karla
; APPLICANT: Falco, Carl
; APPLICANT: Famodu, Omolayo O.
; APPLICANT: Fang, Yiwen
; APPLICANT: Han, Feng
; APPLICANT: Heppard, Elmer
; APPLICANT: Liu, Zhan-Bin
; APPLICANT: Miao, Gou-Hau
; APPLICANT: Odell, Joan
; APPLICANT: Rafaleki, Antoni
; TITLE OF INVENTION: Disease Resistance Factors
; FILE REFERENCE: B1252 US NAI
; CURRENT APPLICATION NUMBER: US/09/848, 841
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: 60/107,242
; PRIOR FILING DATE: 1998-11-05
; PRIOR APPLICATION NUMBER: US99/25,953
; PRIOR FILING DATE: 1999-10-04
; NUMBER OF SEQ ID NOS: 17
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 10
; LENGTH: 582
; TYPE: PRT
; ORGANISM: Oryza sativa
US-09-848-841-10

Query Match 99.4%; Score 2934; DB 10; Length 582;
Best Local Similarity 99.5%; Prod. No. 2e-246; Indels 0; Gaps 0;
Matches 579; Conservative 0; Mismatches 3;

QY 1 MEPTSHVTNATFSDSDSASVEEGDADADVEALRRLSDNLAARSPEDPAFLADARIA 60
 Db 1 MEPTSHVTNATFSDSDSASVEEGDADADVEALRRLSDNLAARSPEDPAFLADARIA 60
 QY 61 VPGGGGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGDEGSERLRELLGGGGE 120
 Db 61 VPGGGGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGDEGSERLRELLGGGGE 120
 QY 121 VEVEYALRLVLDVLYSGRVGDLPKAACLCVDEDCAHGCHPAVAFMAQVLPAASTFQVA 180
 Db 121 VEVEYALRLVLDVLYSGRVGDLPKAACLCVDEDCAHGCHPAVAFMAQVLPAASTFQVA 180
 QY 181 ELTNLFQRRLDVLVDKVEVDNLLILSVANLCNKSCKMLERCLDMVVRNSLMTLEKS 240
 Db 181 ELTNLFQRRLDVLVDKVEVDNLLILSVANLCNKSCKMLERCLDMVVRNSLMTLEKS 240
 QY 241 LPPDVVKQIIDARLSGLISPEKGFPMKHVRRHRLDSDDVETVRLMTEGQTNLDDA 300
 Db 241 LPPDVVKQIIDARLSGLISPEKGFPMKHVRRHRLDSDDVETVRLMTEGQTNLDDA 300
 QY 301 FALHYAVEHCDKTTTELDDALADVNHRNPRGYTVLHTAARRRPEKTIIVSLITKGARPA 360
 Db 301 FALHYAVEHCDKTTTELDDALADVNHRNPRGYTVLHTAARRRPEKTIIVSLITKGARPA 360
 QY 361 DVTFDGRKAVQISKRITKQDYGVTBEGKSPKDRCTEILBOARRDPOLGEASVSLA 420
 Db 361 DVTFDGRKAVQISKRITKQDYGVTBEGKSPKDRCTEILBOARRDPOLGEASVSLA 420
 QY 421 MAGESLRGRLLYLENNVALARIMFPEARVANDIAQVDTGLEFNLGSGANPPERORTTV 480
 Db 421 MAGESLRGRLLYLENNVALARIMFPEARVANDIAQVDTGLEFNLGSGANPPERORTTV 480
 QY 481 DINESPFIKEEHLARMTALSKTVELGKRPFRCSNVLDKIMDETDPVSLIGRTSAEKR 540
 Db 481 DINESPFIKEEHLARMTALSKTVELGKRPFRCSNVLDKIMDETDPVSLIGRTSAEKR 540
 QY 541 KRPHDQVLOKAFHEDEKENDRSGLSSSSSSTSGAIRPRR 582
 Db 541 KRPHDQVLOKAFHEDEKENDRSGLSSSSSSTSGAIRPRR 582

RESULT 2
 US-10-374-780A-597
 / Sequence 597, Application US/10374780A
 / Publication No. US20040019927A1
 / GENERAL INFORMATION:
 / APPLICANT: Sherman, Bradley K
 / APPLICANT: Riechmann, Jose Luis
 / APPLICANT: Jiang, Cai-Zhong
 / APPLICANT: Heard, Jacqueline E
 / APPLICANT: Haake, Volker
 / APPLICANT: Creelman, Robert A
 / APPLICANT: Ratcliffe, Oliver
 / APPLICANT: Adam, Luc J
 / APPLICANT: Reuber, T. Lynne
 / APPLICANT: Keddie, James
 / APPLICANT: Brown, Pierre E
 / APPLICANT: Pilgrim, Marsha L
 / APPLICANT: Dubell III, Arnold T
 / APPLICANT: Pineda, Omaira
 / APPLICANT: Yu, Guo-Liang
 / TITLE OF INVENTION: POLYNUCLEOTIDES AND POLYPEPTIDES IN PLANTS
 / FILE REFERENCE: MB1-0047 CIP
 / CURRENT APPLICATION NUMBER: US/10/374,780A
 / PRIOR FILING DATE: 2003-02-25
 / PRIOR APPLICATION NUMBER: 09/837,944
 / PRIOR FILING DATE: 2001-04-18
 / PRIOR APPLICATION NUMBER: 60/310,847
 / PRIOR FILING DATE: 2001-08-09
 / PRIOR APPLICATION NUMBER: 09/934,455
 / PRIOR FILING DATE: 2001-08-22
 / PRIOR APPLICATION NUMBER: 60/336,049
 / PRIOR FILING DATE: 2001-11-19

1 PRIOR APPLICATION NUMBER: 60/338,692
 / PRIOR FILING DATE: 2001-12-11
 / PRIOR APPLICATION NUMBER: 10/171,468
 / PRIOR FILING DATE: 2002-06-14
 / PRIOR APPLICATION NUMBER: 10/225,066
 / PRIOR FILING DATE: 2002-08-09
 / PRIOR APPLICATION NUMBER: 10/225,067
 / PRIOR FILING DATE: 2002-08-09
 / PRIOR APPLICATION NUMBER: 10/225,068
 / PRIOR FILING DATE: 2002-08-09
 / NUMBER OF SEQ ID NOS: 2906
 / SOFTWARE: PatentIn version 3.2
 / SEQ ID NO 597
 / LENGTH: 615
 / TYPE: PR
 / ORGANISM: Oryza sativa
 / FEATURES:
 / OTHER INFORMATION: Orthologous to G278
 US-10-374-780A-597

Query Match 98.5%; Score 2907.5; DB 15; Length 615;
 Best Local Similarity 94.1%; Pred. No. 4,46-244;
 Matches 579; Conservative 0; Mismatches 3; Indels 33; Gaps 1;

QY 1 MEPTSHVTNATFSDSDSASVEEGDADADVEALRRLSDNLAARSPEDPAFLADARIA 60
 Db 1 MEPTSHVTNATFSDSDSASVEEGDADADVEALRRLSDNLAARSPEDPAFLADARIA 60
 QY 61 VPGGGGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGDEGSERLRELLGGGGE 120
 Db 61 VPGGGGGGGDLRVHRCVLSARSPFLRGVFARRAAAAAGGGGDEGSERLRELLGGGGE 120
 QY 121 VEVEYALRLVLDVLYSGRVGDLPKAACLCVDEDCAHGCHPAVAFMAQVLPAASTFQVA 180
 Db 121 VEVEYALRLVLDVLYSGRVGDLPKAACLCVDEDCAHGCHPAVAFMAQVLPAASTFQVA 180
 QY 181 ELTNLFQRRLDVLVDKVEVDNLLILSVANLCNKSCKMLERCLDMVVRNSLMTLEKS 240
 Db 181 ELTNLFQRRLDVLVDKVEVDNLLILSVANLCNKSCKMLERCLDMVVRNSLMTLEKS 240
 QY 241 LPPDVVKQIIDARLSGLISPEKGFPMKHVRRHRLDSDDVETVRLMTEGQTNLDDA 300
 Db 241 LPPDVVKQIIDARLSGLISPEKGFPMKHVRRHRLDSDDVETVRLMTEGQTNLDDA 300
 QY 301 FALHYAVEHCDKTTTELDDALADVNHRNPRGYTVLHTAARRRPEKTIIVSLITKGARPA 360
 Db 301 FALHYAVEHCDKTTTELDDALADVNHRNPRGYTVLHTAARRRPEKTIIVSLITKGARPA 360
 QY 361 DVTFDGRKAVQISKRITKQDYGVTBEGKSPKDRCTEILBOARRDPOLGEASVSLA 420
 Db 361 DVTFDGRKAVQISKRITKQDYGVTBEGKSPKDRCTEILBOARRDPOLGEASVSLA 420
 QY 421 MAGESLRGRLLYLENNVALARIMFPEARVANDIAQVDTGLEFNLGSGANPPERORTTV 480
 Db 421 MAGESLRGRLLYLENNVALARIMFPEARVANDIAQVDTGLEFNLGSGANPPERORTTV 480
 QY 481 ARVANDIAQVDTGLEFNLGSGANPPERORTTVLINESPFIKEEHLARMTALSKTVELG 507
 Db 481 ARVANDIAQVDTGLEFNLGSGANPPERORTTVLINESPFIKEEHLARMTALSKTVELG 507
 QY 508 KRFPFRCSNVLDKIMDETDPVSLIGRTSAEKRKHFDQVLOKAFHEDEKENDRSGLS 567
 Db 508 KRFPFRCSNVLDKIMDETDPVSLIGRTSAEKRKHFDQVLOKAFHEDEKENDRSGLS 567
 QY 541 KRFPFRCSNVLDKIMDETDPVSLIGRTSAEKRKHFDQVLOKAFHEDEKENDRSGLS 600
 Db 541 KRFPFRCSNVLDKIMDETDPVSLIGRTSAEKRKHFDQVLOKAFHEDEKENDRSGLS 600
 QY 568 SSSSSTSGAIRPRR 582
 Db 568 SSSSSTSGAIRPRR 582
 QY 601 SSSSSTSGAIRPRR 615
 Db 601 SSSSSTSGAIRPRR 615

RESULT 3
 US-10-437-963-153749
 / Sequence 153749, Application US/10437963
 / Publication No. US20040123343A1

```
/ GENERAL INFORMATION:
/ APPLICANT: La Rosa, Thomas J.
/ APPLICANT: Kovalic, David K.
/ APPLICANT: Zhou, Yihua
/ APPLICANT: Cao, Yongwei
/ APPLICANT: Mu, Wei
/ APPLICANT: Boukharov, Andrey A.
/ APPLICANT: Barbazuk, Brad
/ APPLICANT: Li, Ping
/ TITLE OF INVENTION: Rice Nucleic Acid Molecules and Other Molecules Associated With
/ FILE OF INVENTION: Plants and Uses Thereof for Plant Improvement
/ FILE REFERENCE: 38-21(5322)B
/ CURRENT APPLICATION NUMBER: US/10/437,963
/ CURRENT FILING DATE: 2003-05-14
/ NUMBER OF SEQ ID NOS: 204966
/ SEQ ID NO 153749
/ LENGTH: 615
/ TYPE: PR
/ ORGANISM: Oryza sativa
/ FEATURE:
/ OTHER INFORMATION: Clone ID: PAT_MRT4530_53675C.1.pep
US-10-437-963-153749

Query Match          98.5%; Score 2907.5; DB 16; Length 615;
Best Local Similarity 94.1%; Pred. No. 4.4e-244;
Matches 579; Conservative 0; Mismatches 3; Indels 33; Gaps 1;

OY 1 MBPSSHVYNAPSDSDSASVEGDADADADVEALRSLDNILAAFPSPDPFAFLAARLA 60
DB 1 MBPSSHVYNAPSDSDSASVEGDADADVEALRSLDNILAAFPSPDPFAFLAARLA 60
OY 61 VEGGGGGGDDLVRHRCVLSARSFPLRGVAFARPAAGGSGEDSELELELGGGGE 120
DB 61 VEGGGGGGDDLVRHRCVLSARSFPLRGVAFARPAAGGSGEDSELELELGGGGE 120
OY 121 VEVGVEALRLVDYLYSGVVDLPKACLCVDEDCAHVGHAPVAFMAOVLFAASTFOYA 180
DB 121 VEVGVEALRLVDYLYSGVVDLPKACLCVDEDCAHVGHAPVAFMAOVLFAASTFOYA 180
OY 181 ELTNLFORRLDVLDEVDNLLILSVANLCKNSCKMLERCLDMVVRNSLDMITLES 240
DB 181 ELTNLFORRLDVLDEVDNLLILSVANLCKNSCKMLERCLDMVVRNSLDMITLES 240
OY 241 LPPDVYKOIIDARLSGLISPEKGFPPNKHVRRIHRLDSDVDELVRMLTTEGQTLDA 300
DB 241 LPPDVYKOIIDARLSGLISPEKGFPPNKHVRRIHRLDSDVDELVRMLTTEGQTLDA 300
OY 301 PALHYAVEHCDSKITTELDLADLVNHNPRGYTVLHIAARRRBEKIIIVSLITKGARPA 360
DB 301 PALHYAVEHCDSKITTELDLADLVNHNPRGYTVLHIAARRRBEKIIIVSLITKGARPA 360
OY 361 DVTFGORCAVOISKRTKGDYGVTEBEKSPKDLCEIIEQARRRPQGEASVSLA 420
DB 361 DVTFGORCAVOISKRTKGDYGVTEBEKSPKDLCEIIEQARRRPQGEASVSLA 420
OY 421 MAGESLGRLLYLENR-----VALARIPEME 447
DB 421 MAGESLGRLLYLENR-----VALARIPEME 447
OY 448 AAVAMDIADVDTLEFNLSGANPPERQRTTYDLNESPFIMKEEHLAARMTALSTVELG 507
DB 448 AAVAMDIADVDTLEFNLSGANPPERQRTTYDLNESPFIMKEEHLAARMTALSTVELG 507
OY 508 KRFPPRCNVLDKIMDETPVSLGRDTSAEKKRPHDLOVLOKAFHEDKENDSGSL 567
DB 508 KRFPPRCNVLDKIMDETPVSLGRDTSAEKKRPHDLOVLOKAFHEDKENDSGSL 567
OY 541 KRFPPRCNVLDKIMDETPVSLGRDTSAEKKRPHDLOVLOKAFHEDKENDSGSL 600
DB 541 KRFPPRCNVLDKIMDETPVSLGRDTSAEKKRPHDLOVLOKAFHEDKENDSGSL 600
OY 568 SSSSTSIGAIRPRR 582
DB 568 SSSSTSIGAIRPRR 582
OY 601 SSSSTSIGAIRPRR 615
DB 601 SSSSTSIGAIRPRR 615

RESULT 4
```

```
US-10-425-115-246254
/ Sequence 246254, Application US/10425115
/ Publication No. US20040214272A1
/ GENERAL INFORMATION:
/ APPLICANT: La Rosa, Thomas J.
/ APPLICANT: Kovalic, David K.
/ APPLICANT: Zhou, Yihua
/ APPLICANT: Cao, Yongwei
/ APPLICANT: Li, Ping
/ TITLE OF INVENTION: Nucleic Acid Molecules and Other Molecules Associated With
/ FILE OF INVENTION: Plants
/ FILE REFERENCE: 38-21(5322)B
/ CURRENT APPLICATION NUMBER: US/10/425,115
/ CURRENT FILING DATE: 2003-04-28
/ NUMBER OF SEQ ID NOS: 369326
/ SEQ ID NO 246254
/ LENGTH: 447
/ TYPE: PR
/ ORGANISM: Zea mays
/ FEATURE:
/ OTHER INFORMATION: Clone ID: MRT4577_156165C.1.pep
US-10-425-115-246254

Query Match          64.8%; Score 1913; DB 17; Length 447;
Best Local Similarity 84.6%; Pred. No. 1.2e-157;
Matches 379; Conservative 31; Mismatches 32; Indels 6; Gaps 3;

OY 140 VGDLPPKACLCVDED-CAHVGHAPVAFMAOVLFAASTFOVAELTNLFORRLDVLDDYK 198
DB 1 VAALEPKACLCVDEDCAHVGHAPVAFMAOVLFAASTFOVAELTNLFORRLDVLDDYK 198
OY 199 VNNLLILSVANLCKNSCKMLERCLDMVVRNSLDMITLESKLPDVYKOIIDARLSGL 258
DB 199 VNNLLILSVANLCKNSCKMLERCLDMVVRNSLDMITLESKLPDVYKOIIDARLSGL 258
OY 259 ISPENKGFPPNKHVRRIHRLDSDVDELVRMLTTEGQTLDDPAFALHYAVEHCDSKITTEL 318
DB 259 ISPENKGFPPNKHVRRIHRLDSDVDELVRMLTTEGQTLDDPAFALHYAVEHCDSKITTEL 318
OY 319 LPLALADVNRHPRGYTVLHIAARRRBEKIIIVSLITKGARPAVDTPFGKAKAVOISKRLTK 378
DB 319 LPLALADVNRHPRGYTVLHIAARRRBEKIIIVSLITKGARPAVDTPFGKAKAVOISKRLTK 378
OY 379 QGDYGVTEBEKSPKDLCEIIEQARRRPQGEASVSLAMAGESLGRLLYLENRVA 438
DB 379 QGDYGVTEBEKSPKDLCEIIEQARRRPQGEASVSLAMAGESLGRLLYLENRVA 438
OY 439 LARIMEARVAMDIADVDTLEFNLSGANPPERQRTTYDLNESPFIMKEEHLAARMT 498
DB 439 LARIMEARVAMDIADVDTLEFNLSGANPPERQRTTYDLNESPFIMKEEHLAARMT 498
OY 499 ALSTVELGKRFPPRCNVLDKIMDETPVSLGRDTSAEKKRPHDLOVLOKAFHEDK 558
DB 499 ALSTVELGKRFPPRCNVLDKIMDETPVSLGRDTSAEKKRPHDLOVLOKAFHEDK 558
OY 559 EENDRSGL-----SSSSSTSIGAIRPRR 582
DB 559 EENDRSGL-----SSSSSTSIGAIRPRR 582
OY 601 SSSSTSIGAIRPRR 615
DB 601 SSSSTSIGAIRPRR 615

RESULT 5
US-10-328-675A-4
/ Sequence 4, Application US/10328675A
/ Publication No. US20030159171A1
/ GENERAL INFORMATION:
/ APPLICANT: Salmeron, John
/ APPLICANT: Weislo, Laura
/ APPLICANT: Willits, Michael
/ TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
/ FILE REFERENCE: 30857USNPDI
/ CURRENT APPLICATION NUMBER: US/10/328,675A
/ CURRENT FILING DATE: 2002-12-23
/ PRIOR APPLICATION NUMBER: 09/519,232
/ PRIOR FILING DATE: 2000-03-06
```

/ PRIOR APPLICATION NUMBER: 60/219,338
 / PRIOR FILING DATE: 1999-03-09
 / NUMBER OF SEQ ID NOS: 74
 / SOFTWARE: Patent In Ver. 2.1
 / SEQ ID NO: 4
 / LENGTH: 576
 / TYPE: PR1
 / ORGANISM: Lycopersicon esculentum
 / US-10-328-675A-4

Query Match 58.8%; Score 1737; DB 14; Length 576;
 Best Local Similarity 59.9%; Pred. No. 3.7e-142;
 Matches 349; Conservative 94; Mismatches 108; Indels 32; Gaps 8;

QY 11 AFSSDSAS-----VEGDADADADVEALRLSDNLAARF-RSPEDPAFLADRIAPV 62
 DB 6 AFSSDNDISSSSSICCNNESETSL-ADVNSIKRLSTLESIPDASRPDPDFADKLAP 64
 QY 63 GGGGGGDLRVHRCVLSARSPPFLRGVFARAAAAAGGGEDESERLEIRELIGGGEEVE 122
 DB 65 -----GKKEIPVHRCILSARSPPFLKAVFC-----GKDSSTLEKEIM---KEYE 106
 QY 123 VGYEALRLVLDIYSGRVGDLPPAACTCYDEDCAHVGHAPAAVLPAASTFOVAEL 182
 DB 107 VSPDAVAVSLAYLSGKVPASKDVCCVDNCECHVACRPAAVAVQVLVASFQISQL 166
 QY 183 TMLFORRLDVLDKVEVDNLILISVANLCKNSCKMLERCLDMVRSNLDMLTLEKSLP 242
 DB 167 VDFQFHLLDIDDKAVADVAVMVLVSVANICGACERLLSRICIDIVSNVDIITLDRSLP 226
 QY 243 PVIYQIILARSLGLISPEKGFPNKIVRIRHRLDSDVDELVRMLLTGQTNLDAFA 302
 DB 227 HVIYQIIDSRAELIQSPESNGFPDKIVKRIHRLDSDVDELVRMLLTGQTNLDAFA 286
 QY 303 LHYAVEHCDSKITTELLDLALADVNRHPRGYTLVLAARRREKTIIVSLITGAPADV 362
 DB 287 LHYAAYCDAKTTAELDLADLVNHNQPRGTYLHVAAMRKEKTIIVSLITGAPADV 346
 QY 363 TPDGKAVQISKRITKQDYGVTBEGSPKDRLCIELEOARBDPQUGASVSLAMA 422
 DB 347 TSDGKRLQIAKRLTRLVDFTKSTBEGKSAFKRCLCEILEOARBDPPLGERSISLAMA 406
 QY 423 GESIIRGLLYENVALARIMFPEARVANDIAQVDTLEFNIGSGANPPRPORRTYVL 482
 DB 407 GDDLRLMLLYENRVLAKLIFPMEAKVANDIAQVDTSELPLASMRKTIADAQRTYVL 466
 QY 483 NESFIMKEEHLARMTLSTKVELGKRFPPRCNSVLDKIM--DDETDPVSLGRDTSAR-- 538
 DB 467 NEAPFPKKEEHLNRRLSRTELGRFPFRCSEVINKIMDADDLSEIAYMGNDTVBERQ 526
 QY 539 -KRRFHDLDVLOKAFHEDEKENDRSGLSSSSSSTSGAIRP 580
 DB 527 LKKQRYWELOEILTKAFTEDEKEFAKTNMSSSCSSSTSGKVDKP 569

RESULT 6
 US-08-908-884-14
 / Sequence 14, Application US/08908884
 / Publication No. US2002013872A1
 / GENERAL INFORMATION:
 / APPLICANT: Dong et al.
 / TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
 / NUMBER OF SEQUENCES: 28
 / CORRESPONDENCE ADDRESS:
 / ADDRESSEE: Clark & Elbing LLP
 / STREET: 176 Federal Street
 / CITY: Boston
 / STATE: MA
 / COUNTRY: USA
 / ZIP: 02110
 / COMPUTER READABLE FORM:
 / MEDIUM TYPE: Diskette
 / COMPUTER: IBM Compatible

/ OPERATING SYSTEM: DOS
 / SOFTWARE: FastSeq for Windows Version 2.0
 / CURRENT APPLICATION DATA:
 / APPLICATION NUMBER: US/08/908,884
 / FILING DATE:
 / CLASSIFICATION: 800
 / PRIOR APPLICATION DATA:
 / APPLICATION NUMBER: 60/023,651
 / FILING DATE: August 9, 1996
 / APPLICATION NUMBER: 60/035,166
 / FILING DATE: January 10, 1997
 / APPLICATION NUMBER: 60/046,769
 / FILING DATE: May 16, 1997
 / ATTORNEY/AGENT INFORMATION:
 / NAME: Elbing, Karen L.
 / REGISTRATION NUMBER: 35,238
 / REFERENCE/DOCKET NUMBER: 00786/339004
 / TELECOMMUNICATION INFORMATION:
 / TELEPHONE: 617-428-0200
 / TELEFAX: 617-428-7045
 / INFORMATION FOR SEQ ID NO: 14:
 / SEQUENCE CHARACTERISTICS:
 / LENGTH: 588 amino acids
 / TYPE: amino acid
 / STRANDEDNESS: single
 / TOPOLOGY: linear
 / MOLECULE TYPE: protein
 / US-08-908-884-14

Query Match 56.7%; Score 1672.5; DB 8; Length 588;
 Best Local Similarity 56.8%; Pred. No. 1.6e-136;
 Matches 336; Conservative 102; Mismatches 119; Indels 35; Gaps 8;

QY 11 AFSSDSASVEE-----GDADADADVEALRLSDNLAARF-RSPEDPAFLAD 56
 DB 7 AFSSDNDISSSSSICCGGMEFPSPSPALISIKRLSTLESIPDASIPEDVPAD 66
 QY 57 ARIAVPGGGGGDLRVHRCVLSARSPPFLRGVFARAAAAAGGGEDESERLEIRELIG 116
 DB 67 AKLV--SGPCKEIPVHRCILSARSPPFLKAVFC-----GKKEKNSVLEKEV-- 113
 QY 117 GGEVEVGYEALRLVLDIYSGRVGDLPPAACTCYDEDCAHVGHAPAAVLPAAST 176
 DB 114 --KEHVSYDAVMSVLAAYLSGKVPASKDVCCVDNCECHVACRPAAVAVQVLVASF 171
 QY 177 FOVAELTMLFORRLDVLDKVEVDNLILISVANLCKNSCKMLERCLDMVRSNLDMLT 236
 DB 172 FOISLVDFFQHHLLDIDKTAADVAVMVLVSVANICGACERLLSRICIDIVSNVDIIT 231
 QY 237 LEKSLPPDVYQIILARSLGLISPEKGFPNKIVRIRHRLDSDVDELVRMLLTGQTN 296
 DB 232 LDKALPFIIVQIITDSRAELIQSPESNGFPDKIVKRIHRLDSDVDELVRMLLTGQTN 291
 QY 297 LDDAFALHAYEHCDSKITTELLDLALADVNRHPRGYTLVLAARRREKTIIVSLITG 356
 DB 292 LDDAFALHAYAYCDAKTTAELDLADLVNHNQPRGTYLHVAAMRKEKTIIVSLITG 351
 QY 357 ARPADVTPDGKAVQISKRITKQDYGVTBEGSPKDRLCIELEOARBDPQUGAS 416
 DB 352 ARPSDLSDBGKRLQIAKRLTRLVDFPSKBEKSSNSRLCIELEOARBDPPLGERS 411
 QY 417 VSLMAGESIRGLLYENVALARIMFPEARVANDIAQVDTLEFNIGSGANPPRPOR 476
 DB 412 VSLMAGDIDLRLMLLYENRVLAKLIFPMEAKVANDIAQVDTSELPLASIGKMANAQ 471
 QY 477 RTVDLNESEPFIMKEEHLARMTLSTKVELGKRFPPRCNSVLDKIM--DDETDPVSLGRD 534
 DB 472 RTVDLNEAPFKKEEHLNRRLSRTELGRFPFRCSEVINKIMDADDLSEIAYMGND 531
 QY 535 TSAE--KRRFHDLDVLOKAFHEDEKENDR-SGLSSSSSTSGAIRPRP 582
 DB 532 TAERQILKKQRYWELOEILTKAFTEDEKEYKTNMSSSCSSSTSGKVDKPK 583

RESULT 7
US-09-908-323-14
Sequence 14, Application US/09908323
Patent No. US20020073447A1
GENERAL INFORMATION:
APPLICANT: Dong et al.
TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
NUMBER OF SEQUENCES: 28
CORRESPONDENCE ADDRESS:
ADDRESSEE: Clark & Elbing LLP
STREET: 176 Federal Street
CITY: Boston
STATE: MA
COUNTRY: USA
ZIP: 02110
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/908,323
FILING DATE: 17-Jul-2001
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/908,884
FILING DATE: <Unknown>
APPLICATION NUMBER: 60/035,166
FILING DATE: January 10, 1997
APPLICATION NUMBER: 60/046,769
FILING DATE: May 16, 1997
ATTORNEY/AGENT INFORMATION:
NAME: Elbing, Karen L.
REGISTRATION NUMBER: 35,238
REFERENCE/DOCKET NUMBER: 00786/339004
TELECOMMUNICATION INFORMATION:
TELEPHONE: 617-428-0200
TELEFAX: 617-428-7045
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 588 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 14:
US-09-908-323-14
Query Match 56.7%; Score 1672.5; DB 9; Length 588;
Best Local Similarity 56.8%; Pred. No. 1,6e-136;
Matches 336; Conservative 102; Mismatches 119; Indels 35; Gaps 8;
Db 11 AFSSDSASVEE-----GDADADADVEALRLSDNLAAAF-RSPEDFAFLAD 56
7 AFSDSNDISGSSSICIGGGMTEFFSPETSPAEITSLKRLSTLBSIFDASLPEFYFD 66
Qy 57 ARIAYPGGGGGGDLRVHRCVLSARSPLRGVFAARRAAAAAGGGGDSERLERLG 116
117 GGEVEVGEALRLVLDYISGRVGDLPKAACTCVDNDCAHVGCRAVAFMAQVLPAAST 176
Db 114 --KEHVSIDAVMSVLAAYISGKVRSPKDVCCVNDNDSHVACRAVAFVLEVLTSFT 171
Qy 177 FOVAELTNLFORRLDLVDKVEVDNLLILSVANLCNKSCKMLERCLDMVVRNSNDMT 236
172 FOISELVDFQRLDLIDKTAADVMMVLSVANICGKACERLLSCIEIIVKSNVDIIT 231
Qy 237 LEKSLPPDIVKQIIDARLSGLISPEKNGPKNGVRRIRALDSDVDELVRMLTGGQN 296
232 LDKALPHDIVKQITDSRAELIGQPSNGFPDKHVRIRALDSDVDELVRMLTGGHTT 291

Qy 297 LDDAFALHYAVCHCSKITTELLDLADLVNRNRNGTYVLIHARRRREPKTIIVSLITKG 356
Db 292 LDDAVALHYAVAYCDAKTAETLELLDLADINHONSRGYTVLHVAAARKPKIVSLITKG 351
Qy 357 ARPADVTPGKRAVOISKRLLTKQGYFGVTEGKSPKORLCIEILEQAEERDPQGEAS 416
Db 352 ARPSDLTSDGRKQDIAKRLRLVDFSKSPBEKSKASNDRLCIEILEQAEERDPQGEAS 411
Qy 417 VSLAMAGESLGRLLYLENRVALARIMPEMARVAMDIQVDTLEFNLSGANPPERQ 476
Db 412 VELAMAGDRLRMKLLYLENRVGLAKLLPFMEKVMAMDIQVDTSEFFPLASIGKMANQ 471
Qy 477 RTTVDLNESPFIMKEBHARMTALSKTVELGKFFPPRCGNAVLDKIM--DDEIDPVSLGND 534
Db 472 RTTVDLNEAPFKIKESHLNRLRLSRVTELGRFFPRCEVINKIMDADDLSEIAYMGND 531
Qy 535 TSAE---KKRPHDIDQVQKAFHEDKEENDR-SGLSSSSSTSGAIRPR 582
Db 532 TAERQLKKQRYMELQELTKAFTEDEKEDKTNINSSSCSTSKGVDPNK 583
RESULT 8
US-10-328-675A-2
Sequence 2, Application US/10328675A
Publication No. US2003015917A1
GENERAL INFORMATION:
APPLICANT: Salmeron, John
APPLICANT: Weiss, Michael
APPLICANT: Williams, Michael
TITLE OF INVENTION: NOVEL PLANT GENES AND USES THEREOF
FILE REFERENCE: 30857USNPDI
CURRENT APPLICATION NUMBER: US/10/328,675A
CURRENT FILING DATE: 2002-12-23
PRIOR APPLICATION NUMBER: 09/519,232
PRIOR FILING DATE: 2000-03-06
PRIOR APPLICATION NUMBER: 60/219,338
PRIOR FILING DATE: 1999-03-09
NUMBER OF SEQ ID NOS: 74
SOFTWARE: Patentin Ver. 2.1
SEQ ID NO 2
LENGTH: 588
TYPE: PRT
ORGANISM: Nicotiana tabacum
US-10-328-675A-2
Query Match 56.7%; Score 1672.5; DB 14; Length 588;
Best Local Similarity 56.8%; Pred. No. 1,6e-136;
Matches 336; Conservative 102; Mismatches 119; Indels 35; Gaps 8;
Db 11 AFSSDSASVEE-----GDADADADVEALRLSDNLAAAF-RSPEDFAFLAD 56
7 AFSDSNDISGSSSICIGGGMTEFFSPETSPAEITSLKRLSTLBSIFDASLPEFYFD 66
Qy 57 ARIAYPGGGGGGDLRVHRCVLSARSPLRGVFAARRAAAAAGGGGDSERLERLG 116
117 GGEVEVGEALRLVLDYISGRVGDLPKAACTCVDNDCAHVGCRAVAFMAQVLPAAST 176
Db 114 --KEHVSIDAVMSVLAAYISGKVRSPKDVCCVNDNDSHVACRAVAFVLEVLTSFT 171
Qy 177 FOVAELTNLFORRLDLVDKVEVDNLLILSVANLCNKSCKMLERCLDMVVRNSNDMT 236
172 FOISELVDFQRLDLIDKTAADVMMVLSVANICGKACERLLSCIEIIVKSNVDIIT 231
Qy 237 LEKSLPPDIVKQIIDARLSGLISPEKNGPKNGVRRIRALDSDVDELVRMLTGGQN 296
232 LDKALPHDIVKQITDSRAELIGQPSNGFPDKHVRIRALDSDVDELVRMLTGGHTT 291
Db 292 LDDAVALHYAVAYCDAKTAETLELLDLADLVNRNRNGTYVLIHARRRREPKTIIVSLITKG 351

Query Match	55.2%	Score 1629	DB 14	Length 604
Best Local Similarity	57.4%	Pred. No. 1e-132		
Matches 343	Conservative 81	Mismatches 130	Indels 44	Gaps 10
QY	11	AFSDSDSAS-----VEEGGADADADVEALRLSTNLAAAR----	SPEED 50	
Db	15	AFSDSDNSNSGSSICCAATTTTTTTTAHENSLSSTPDAAALLRLSTNLSTLQPSLSID	74	
QY	51	FAFLADARIAVPGGGGGGGGDLRVHRCVLSARSPFLRGVARRAAAAAGGCGEDGER---	107	
Db	75	SDSFADAKIV---SGDSREVAVHRCVLSRSRSSFSAFASKREKEK-----ERDKERVVK	127	
QY	108	LELRLELGGGEEVGVYALRLTLDVLYSGRGDLPKAAACLVYEDDCAHVCHNAVAFM	167	
Db	128	LEIKMLAG----DEVGFDSSVAVALGYLISGKAKRNLPRGICVYDVEDSCHEKCRAVVDF	183	
QY	168	AQVLEPAASTFOVAELTNLFORLLDVLDKVEVDNLLILSVANTCNKSKMALKERCLDMV	227	
Db	184	VEVLYLSHKFEIVELVSLYORHLIDLDIKTAPDVLVYLSVAMCGNACDGLIARCDIXI	243	
QY	228	VRSLNDMTLEKSLRPVIVKQIIDARSLGILSPENKGGPNKGVRIIRHALSDSDEVLVR	287	
Db	244	VRSDIDVTTIDKSLPQNVAVKQIIDTRKEGLFTEPGVEFPPDRHVKRIHRALESDDVELVR	303	
QY	288	MLLTGGQTNLDDAFALHYAVEHCDSDKITTEILDIALADVHNHNPGRYTVLHIAARRPEK	347	
Db	304	MLLKERHTLLDDAVALHYAAHCDAKTTEILELLEGLADVNLNLAIGHIVLYHVAAMRKPEK	363	
QY	348	IIVSELLTKGARPADVTPDGKAAVOISKRLTKQGDVYGVTEEGKPSPKRCLCTEILLOAER	407	
Db	364	IIVSELLTKGHPSSITSDDKKAQIAKRLTKVDVFPKTTQCKDAPKRLCTEILEOER	423	

Query Match	48.3%	Score 1425.5	DB 15	Length 335
Best Local Similarity	83.9%	Pred. No. 2.3e-115		
Matches 282	Conservative 24	Mismatches 115	Indels 5	Gaps 2
QY	251	DARLSLGIISPENKGFPPKIVRRIRHRLSDSDVELVRLMLTEGQTLDDAFALHYAVHC	310	
Db	1	DARVSLGLVSEDDGPFNIHVRIRHRLSDSDVELVRLMLKECKTLYDAVLAHYAVEHC	60	
QY	311	DSKITTELLDLADLVNHRNPRGYVLAHIAARRREPKIIIVSLITKGAPEADYTFDGRKAV	370	
Db	61	DSKITTELLDLADLVNHRNPRGYVLAHIAARRREPKIIIVSLITKGAERSDITFPDRKAV	120	
QY	371	QISKRLTKQGYRFGVTEEGKSPKPDRLCTEILEQARRPDPOUGEASVSIAMAGSLSGRLL	430	
Db	121	QISKRLTKHGYPFTEPDGKSPKPDRLCTEILEQARRPDPOUGEASVSIALBGSARGL	180	
QY	431	LYLENRVYALAPMPMAVAVAMDIAVDGTLGFENIGSGANPPPEQRORTVLDINESPFTMK	490	
Db	131	LYLENRVYALAPMPMAVAVAMDIAVDGTLGFETLVSSVNLPAEIQR--TVLDINDTPPFMK	239	
QY	491	EEHLARMTALSKTYELGKRFPPRCNVNLDKIMDETDVPSLGRDPSAEKRRKRFHDIQVLL	550	
Db	240	EEHLARVRLASKTYEVGKRFPPRCNVNLDITMDDEAMASLGRDPSAEKRRKRFHDIQVLL	299	
QY	551	QKAFHEKDEKENDSGL-----SSSSSSTSGIAIRPPR	582	
Db	300	QKAFSEDKENRDSAAKSPSSSSSTTTSIGAVRPPR	335	


```

1  TITLE OF INVENTION:  ACQUIRED RESISTANCE GENES AND USBS THEREOF
2  NUMBER OF SEQUENCES:  28
3  CORRESPONDENCE ADDRESS:
4  ADDRESSEE:  Clark & Ebling LLP
5  STREET:  176 Federal Street
6  CITY:  Boston
7  STATE:  MA
8  COUNTRY:  USA
9  ZIP:  02110
10 COMPUTER READABLE FORM:
11 MEDIUM TYPE:  Diskette
12 COMPUTER:  IBM Compatible
13 OPERATING SYSTEM:  DOS
14 SOFTWARE:  FASTSEQ for Windows Version 2.0
15 CURRENT APPLICATION DATA:
16 APPLICATION NUMBER:  US/08/908,884
17 FILING DATE:
18 CLASSIFICATION:  800
19 PRIOR APPLICATION DATA:
20 APPLICATION NUMBER:  60/023,851
21 FILING DATE:  August 9, 1996
22 APPLICATION NUMBER:  60/035,166
23 FILING DATE:  January 10, 1997
24 APPLICATION NUMBER:  60/046,769
25 FILING DATE:  May 16, 1997
26 ATTORNEY/AGENT INFORMATION:
27 NAME:  Ebling, Karen L
28 REGISTRATION NUMBER:  35,238
29 REFERENCE/DOCKET NUMBER:  00786/339004
30 TELECOMMUNICATION INFORMATION:
31 TELEPHONE:  617-428-0200
32 TELEFAX:  617-428-7045
33 INFORMATION FOR SEQ ID NO:  3:
34 SEQUENCE CHARACTERISTICS:
35 LENGTH:  593 amino acids
36 TYPE:  amino acid
37 STRANDEDNESS:  single
38 TOPOLOGY:  linear
39 MOLECULE TYPE:  protein
40 US-08-908-884-3

```

Query Match	43.2%	Score 1276:	DB 102:	Length 593:
Beet Local Similarity	47.2%:	Pred. No. 5,6e-102:		
Matches 273:	Conservative 113:	Mismatch 165:	Indels 28:	Gaps 9:
Qy	5	TSHVTNAPSDDSDASVEEGDADADADYALRLSDNLAAFRSPEDPAFLADARIAVPGG	64	
Db	17	TSFAVATDNTDSIYVLAAGVLTGSDVGAQLQLSNPFSPVPSPD--FYSDAKIVL----	71	
Qy	65	GGGGGDLVNRVCVLSARSPPFLRGVAFARPAAAAAAGGGGDSERLEIRLLGGGGEVEVG	124	
Db	72	-SDGREVAFPHCVLSARSSPFKSAALA--AAKKESQNNATVAVKLEKEI---AKDYEVG	124	
Qy	125	YEALRLVLDVLYSGRGVDLPKACLCVDEDCAHVCHPAVAFMAVDLPASTPFOVAELTN	184	
Db	125	FDSVVTVAIAYSSVVRPPPKGVSCADENCHCAVCRAPDPMLEVLTAIFKIPDELIT	184	
Qy	185	LFORRLDVLDRKVENYDNLILLSVANLCNKSCKMLBECCLMDVYRASNLMITTEKSLPPD	244	
Db	185	LYQRHLLDVNDKVVIEDTLVLTKLANICGAKCMKRLDCKEIIIVKSNYDWSLEKSLPEE	244	
Qy	245	VIKQIIDRLBILGLISPEKGFPRNKGVRIRHALSDPVELVRLMLTTEGQNTLDDAFAHL	304	
Db	245	LVKEIIDRRKEIGEVPRVK---GIVSNVHAKLSDSDIELVKLLKKEIDHTNLDDACALH	300	
Qy	305	YAVEHCDSKITTELELDLALADVNNHNPBGTYTLHIAARBRBKIIIVSLITKGARPADATF	364	
Db	301	FAVAACNVKXTDLDLKDLDADVNNHNPBGTYTLHVAARKEEQLLSLILEKGAASSENTL	360	
Qy	365	DGRKAVQISKRLTKGQDYFGVTEEGSPKDRCLCIEIIEQARRDPQIGEASVSLIAMAGE	424	
Db	361	EGRTALMTAKATVMAVECNINIPGQCHSISKGLCEVIEIEQEDRKRQIIRPDVPPSRVAVD	420	

```

QY 425 SLRGGLLYLBNRVALAQRIMEPEWEAVANDIAQVDGLTEBNISGAMPPEP-----QRTTV 480
Db 421 ELKMTLLDLLENRVALAQRIFPEAOAAMEIAAMKGCPEIVYS--LEPRLTGTRTTSP
QY 481 DLNESPFLMKEBHLARMTALSTVIELGRFPFPCSNVLDKIMD-DETPVSLGRDPTSAEK 539
Db 478 GVKLAIPFLIEEHOSRLKALSTVIELGRKFPFPCSNVLQIMNCEDLTOLACGBDPTAEK 537
QY 540 R-----KRPHDLQDVLQKAFHEHKEENDRSGLSSSSSSTS 574
Db 538 RLQKKQRVMEIQETLKAFSEEDNLGNSSLLDSTSTSTS 576

```

```

RESULT 12
US-09-908-323-3
/ Sequence 3, Application US/09908323
/ Patent No. US20020073447A1
/ GENERAL INFORMATION:
/ APPLICANT: Dong et al.
/ TITLE OF INVENTION: ACQUIRED RESISTANCE GENES AND USES THEREOF
/ NUMBER OF SEQUENCES: 28
/ CORRESPONDENCE ADDRESS:
/ ADDRESSEE: Clark & Elbing LLP
/ STREET: 176 Federal Street
/ CITY: Boston
/ STATE: MA
/ COUNTRY: USA
/ ZIP: 02110
/
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Diskette
/ COMPUTER: IBM Compatible
/ OPERATING SYSTEM: DOS
/ SOFTWARE: FASTSEQ for Windows Version 2.0
/
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/09/908,323
/ FILING DATE: 17-Jul-2001
/ CLASSIFICATION: <Unknown>
/
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: 08/908,884
/ FILING DATE: <Unknown>
/ APPLICATION NUMBER: 60/035,166
/ FILING DATE: January 10, 1997
/ APPLICATION NUMBER: 60/046,769
/ FILING DATE: May 16, 1997
/
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Elbing, Karen L.
/ REGISTRATION NUMBER: 35,238
/ REFERENCE/DOCKET NUMBER: 00786/339004
/
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: 617-428-0200
/ TELEFAX: 617-428-7045
/
/ INFORMATION FOR SEQ ID NO: 3:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 593 amino acids
/ TYPE: amino acid
/ STRANDEDNESS: single
/ TOPOLOGY: linear
/ MOLECULE TYPE: protein
/
/ SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-908-323-3

Query Match 43.2%; Score 1276; DB 9; Length 593;
Best Local Similarity 47.2%; Pred. No. 5,6e-102;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9

5 TSHVTNATSDSDSASVEGDADADADVEALRLSDNLAIAFRSPBDFAFLADRIAVPGG 64
17 TSVFATDNTDSSIVYLAIAQVLGTDPVSLQLGLNSFESVPSPDD--FYSDAKLVL--- 71
65 GGGGGDLRVHRCVLSARSPFLGVPARRAAAAAGGGGEGDGSERLEIRELLGGGEEVEVG 124
72 -SDGEGVHRCVLSARSPFLGVPARRAAAAAGGGGEGDGSERLEIRELLGGGEEVEVG 124

```

QY 125 YEALRLVLDLYSGRVGDLPRKACLQVDEDCAHVCHPAVAFMAQVTPAASTFOVAELTN 184
Db 125 FDSVTVLAVYSSRVPPRGVSEGCADENCCHVACRPADVPMLEVTYLAFFIKIPELIT 184
QY 185 LFORRLDVLDKYEVNDLLILSVANLCKNSCKMLIERCLDMVVSNDMTITLEKSLPPD 244
Db 185 LYQRHLDDVDKVIIEPTVILKLANICGKACMKLDRCKEIIYKSNVDMVSLKSLPEE 244
QY 245 VIKOIIDARLSGLISPEKGFPMKHVRIRHAILOSDVVELVRMLLTGQTNLDAPALH 304
Db 245 LYQRHLDDVDKVIIEPTVILKLANICGKACMKLDRCKEIIYKSNVDMVSLKSLPEE 300
QY 305 YAVHCDSKITTELDLADLVNHNRPGRYTVLHIAARRREPKIIVSLITKARPADVT 364
Db 301 FAVAYCNVKTATDLKLDLADVNHNRPGRYTVLHIAARRREPKIIVSLITKARPADVT 360
QY 365 DGRKAVQISRLTKQGYFGVTEBSKPSPKORLCIEIIHQERRDPOLGEASVSLMAGE 424
Db 361 EGRITLMIKQATMAVECNINPEQCKHSLKGRLCVEIIEQEDKREQIPRDVPPSPAVAD 420
QY 425 SLRGLIYLVENRVALARIMFPMPEARVAMDTAQNVDGLEFNLSGANPPPER---QRTTV 480
Db 421 ELKMTLLDENRVALAQRLPTEAQAAMEIAEMKGTCEFIYTS---LEPDRITGTYKTS 477
QY 481 DINESPFIKKEEHLARMTALSKTVELGKRPFRCSNVLDKIMD-DETPVSLGRDTSAEK 539
Db 478 GVKIAPFRILIEHQSRKALSKTVELGKRPFRCSNVLDKIMD-DETPVSLGRDTSAEK 537
QY 540 R---KRFHDLQVLOKAFHEDKEENDRSGJSSSSSTS 574
Db 538 RLOKKQRYMEIOETLKAFSEDNLEIGNSLTDTSTSTS 576

RESULT 13
US-09-934-455-74
Sequence 74, Application US/09934455
Publication No. US20030121070A1
GENERAL INFORMATION:
APPLICANT: Adam, Luc
APPLICANT: Creelman, Robert
APPLICANT: Dubell, Arnold
APPLICANT: Heard, Jacqueline
APPLICANT: Jiang, Cai-Zhong
APPLICANT: Keddie, James
APPLICANT: Pilgrim, Marsha
APPLICANT: Ratcliffe, Oliver
APPLICANT: Reuber, Lynne
APPLICANT: Riechmann, Jose Luis
APPLICANT: Yu, Guo-Liang
APPLICANT: yineda, Omatia
TITLE OF INVENTION: Genes For Modifying Plant Traits IV
FILE REFERENCE: MBI-0025
CURRENT APPLICATION NUMBER: US/09/934,455
CURRENT FILING DATE: 2001-08-22
PRIOR APPLICATION NUMBER: 60/227439
PRIOR FILING DATE: 2000-08-22
PRIOR APPLICATION NUMBER: MBI-0022
PRIOR FILING DATE: 2001-11-16
PRIOR APPLICATION NUMBER: MBI-0023
PRIOR FILING DATE: 2001-04-17
NUMBER OF SEQ ID NOS: 516
SOFTWARE: PatentIn version 3.1
SEQ ID NO 74
LENGTH: 593
TYPE: PRT
ORGANISM: Arabidopsis thaliana
US-09-934-455-74

Query Match 43.2%; Score 1276; DB 10; Length 593;
Best Local Similarity 47.2%; Pred. No. 5,6e-102;
Matches 273; Conservative 113; Mismatches 165; Indels 28; Gaps 9;

QY 5 TSHVTNARSDSASVEGDADADVAELRLSLDNLAARSPDFALADARIIVPGG 64

Db 17 TSFVATNDNDSSTIVYLAAGQVLTGPVSAIQLSNFSFVSFPDSD--FYSDAKVLV--- 71
QY 65 GGGGGDLVRHRCVLSARSPFLRGVFAARRAAAAAGGGEGBRLRLRELLGGGEVEVG 124
Db 72 -SDGREVSFHRCLVLSRSSFFYSALA--AAKESDNNTAAVLEIKET---ADQYEVG 124
QY 125 YEALRLVLDLYSGRVGDLPRKACLQVDEDCAHVCHPAVAFMAQVTPAASTFOVAELTN 184
Db 125 FDSVTVLAVYSSRVPPRGVSEGCADENCCHVACRPADVPMLEVTYLAFFIKIPELIT 184
QY 185 LFORRLDVLDKYEVNDLLILSVANLCKNSCKMLIERCLDMVVSNDMTITLEKSLPPD 244
Db 185 LYQRHLDDVDKVIIEPTVILKLANICGKACMKLDRCKEIIYKSNVDMVSLKSLPEE 244
QY 245 VIKOIIDARLSGLISPEKGFPMKHVRIRHAILOSDVVELVRMLLTGQTNLDAPALH 304
Db 245 LYQRHLDDVDKVIIEPTVILKLANICGKACMKLDRCKEIIYKSNVDMVSLKSLPEE 300
QY 305 YAVHCDSKITTELDLADLVNHNRPGRYTVLHIAARRREPKIIVSLITKARPADVT 364
Db 301 FAVAYCNVKTATDLKLDLADVNHNRPGRYTVLHIAARRREPKIIVSLITKARPADVT 360
QY 365 DGRKAVQISRLTKQGYFGVTEBSKPSPKORLCIEIIHQERRDPOLGEASVSLMAGE 424
Db 361 EGRITLMIKQATMAVECNINPEQCKHSLKGRLCVEIIEQEDKREQIPRDVPPSPAVAD 420
QY 425 SLRGLIYLVENRVALARIMFPMPEARVAMDTAQNVDGLEFNLSGANPPPER---QRTTV 480
Db 421 ELKMTLLDENRVALAQRLPTEAQAAMEIAEMKGTCEFIYTS---LEPDRITGTYKTS 477
QY 481 DINESPFIKKEEHLARMTALSKTVELGKRPFRCSNVLDKIMD-DETPVSLGRDTSAEK 539
Db 478 GVKIAPFRILIEHQSRKALSKTVELGKRPFRCSNVLDKIMD-DETPVSLGRDTSAEK 537
QY 540 R---KRFHDLQVLOKAFHEDKEENDRSGJSSSSSTS 574
Db 538 RLOKKQRYMEIOETLKAFSEDNLEIGNSLTDTSTSTS 576

RESULT 14
US-09-848-841-17
Sequence 17, Application US/09848841
Publication No. US20030172411A1
GENERAL INFORMATION:
APPLICANT: Butler, Karla
APPLICANT: Falco, Carl
APPLICANT: Famodu, Omolayo O.
APPLICANT: Fang, Yiwen
APPLICANT: Heppard, Elmer
APPLICANT: Liao, Zhan-Bin
APPLICANT: Miao, Gou-Hau
APPLICANT: Odell, Joan
APPLICANT: Rafaleki, Antoni
TITLE OF INVENTION: Disease Resistance Factors
FILE REFERENCE: BB1252 US NAI
CURRENT APPLICATION NUMBER: US/09/848,841
CURRENT FILING DATE: 2001-05-04
PRIOR APPLICATION NUMBER: 60/107,242
PRIOR FILING DATE: 1998-11-05
PRIOR APPLICATION NUMBER: US99/75,953
PRIOR FILING DATE: 1999-10-04
NUMBER OF SEQ ID NOS: 17
SOFTWARE: Microsoft Office 97
SEQ ID NO 17
LENGTH: 593
TYPE: PRT
ORGANISM: Arabidopsis thaliana
US-09-848-841-17

Query Match 43.2%; Score 1276; DB 10; Length 593;

This Page Blank (uspio)